



400 Main Street  
East Hartford, Connecticut 06108

January 3, 1991

Ms. Lynn M. Clune  
Engineer  
Waste Engineering & Enforcement Division  
Department of Environmental Protection  
165 Capitol Avenue  
Hartford, Connecticut 06106

RCRA PART B CENTER  
112 112 WH-111  
100-100-100-100  
R-113  
RDMS #2341

Ref: 1 RCRA Part B Application Revision  
Pratt & Whitney East Hartford CTD990672081

2 Letter D. Nash, CT DEP to R. Weiss, dated 12/7/90

Dear Ms. Clune:

In response to Reference 2 above we are submitting to you one (1) copy of the RCRA Part B Permit Application revisions for the Pratt & Whitney facility at 400 Main Street, East Hartford, Connecticut. An instruction page for inserting the revisions, into the 11/13/90 version of reference 1 above, is included. A copy of these revisions is being mailed to John Podgurski, USEPA.

As was discussed in a December 14, 1990 phone call, between you and Merwin Andrew, the revisions reflect the current status of Pratt & Whitney activities. However, some of our operations are under going significant change. Many of these changes are still being developed and detailed information is not available at this time. As agreed, we are providing you with revisions to Process Information, the Waste Analysis Plan, and Closure Plan, with further information on our changing activities, to be submitted when it becomes available.

We are currently revising our barrel management practices. This includes on line computer tracking of waste barrels within the manufacturing facility. A new section entitled "Guidelines for Waste Barrel Management" has been added to Section Process Information. Identification, consolidation, and standardization of barrel management stations for less than ninety day storage and point of generation accumulation is also ongoing. This will mean that the Contingency Plan will change as areas are added or deleted.

Another change involves upgrading our waste handling facilities on a very aggressive schedule. The attached application describes our current operational practices and outlines future changes to various plans. In addition we are currently designing a new container and bulk liquid handling facility, which will include facilities to improve waste storage and handling. These changes will include additional waste segregation and modernization of the

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facility. Conceptual design drawings, along with appropriate revisions to the Part B Application will be submitted to you by January 31, 1991. We will keep you informed of our progress on this critical project.

We are submitting a revised Waste Analysis Plan and other appropriate sections of the application as they apply to evaluating the compatibility of our waste streams. This information was prepared after our review of the American Cyanamid Draft Permit as it applies to our operations. This information includes separation of chemicals by Reactivity Group Numbers (RGN) and their Hazard Identification Numbers for Flammability, Reactivity, and Health in accordance with National Fire Protection Association (NFPA) requirements. Only minor changes in the waste descriptions are anticipated at this time.

We have revised the Closure Plan per your request. The Closure Plan in Section H now contains only those existing facilities where we plan to conduct permitted activities. The remaining existing facilities have been split into a partial closure plan and have been included in Appendix H-4. This partial closure plan will be submitted when the planned storage building comes on line.

P&W is also completely redesigning its hazardous waste training program. It is not possible to submit our revised program at this time since the project is just beginning. The 11/13/90 version of Reference 1 above describes our current training program. The training program revision is expected to be completed by July 1991 and will be implemented in the third quarter 1991. We will transmit a revision to the Part B Application as soon as possible.

We are continuing to pursue additional information and will submit it when it becomes available. The following table summarizes the RCRA Application and the changes we are anticipating:

	<u>Significant Modifications Anticipated</u>
Section A - Part A Application	Yes <sup>1</sup>
Section B - Facility Description	No
Section C - Waste Analysis Plan	No

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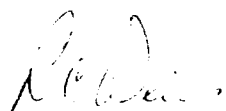
Section D - Process Information	Yes <sup>2</sup>
Section E - Procedures to Prevent Hazards	No
Section F - Contingency Plan	Yes <sup>3</sup>
Section G - Personnel Training	Yes <sup>4</sup>
Section H - Closure	Yes <sup>5</sup>

Notes:

- 1 The Part A application is expected to change to reflect changes to the container and bulk liquid handling facilities.
- 2 This section may change to reflect the construction of the planned container and bulk liquid handling facilities.
- 3 The Contingency Plan is currently undergoing an evaluation for revision. Changes in less than ninety day and point of generation storage areas will impact this plan. In addition, revisions to the container and bulk liquid handling facilities, will also dictate changes.
- 4 The P&W Training Program and associated administrative systems are being revised.
- 5 The Closure Plan must be further revised to reflect planned changes in the container and bulk liquid handling facilities.

Thank you for your cooperation and assistance. If you have any questions, please contact Merwin Andrew at 565-3425.

Very truly yours,



R. C. Weiss, Director  
Facilities & Services

RCW/MAA

cc: John Podgurski, USEPA - Letter & Application Revisions  
George Dews, CTDEP - Letter only  
David Nash, CTDEP - Letter only

SCHEDULE FOR INCORPORATING  
ADDITIONS AND MODIFICATIONS  
FOR  
PRATT & WHITNEY'S EAST HARTFORD  
RCRA PART B PERMIT APPLICATION

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RCRA PART B PERMIT APPLICATION

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\* Title page only

\*\* Addition of 36 pages and 1 Figure

RESOURCE CONSERVATION AND RECOVERY ACT  
PART B PERMIT APPLICATION  
UNITED TECHNOLOGIES CORPORATION  
PRATT & WHITNEY  
400 MAIN STREET  
EAST HARTFORD, CT  
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EXHIBIT C-1

Waste Analysis Plan

P&W - EH  
ENV. COMP. MANUAL  
WASTE ANALYSIS PLAN  
JANUARY 1991 REV. NO. 3

WASTE ANALYSIS PLAN  
ENVIRONMENTAL COMPLIANCE MANUAL  
PRATT & WHITNEY  
EAST HARTFORD MANUFACTURING FACILITY  
EAST HARTFORD, CT

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Table 5	Waste Compatibility Categories
Table 6	Material Hazard Rating
Table 7	Container Compatibility

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Figure 1	Flow Diagram
Figure 2	EPA Compatibility Matrix

LIST OF ACRONYMS

CCW = Constituent concentrations in the Waste  
CCWE = Constituent concentrations in the Waste Extract  
CFR = Code of Federal Regulations  
CWTP = Concentrated Waste Treatment Plant  
DEP = Connecticut Department of Environmental Protection  
EPA = U.S. Environmental Protection Agency  
IWTS = Industrial Waste Tracking System  
LDR = Land Disposal Restrictions  
MSDS = Material Safety Data Sheet  
P&W = Pratt & Whitney  
RCRA = Resource Conservation & Recovery Act  
RGN = Reactivity Group Number  
TCLP = Toxicity Characteristic Leaching Procedure  
TSDF = Treatment, Storage, Disposal Facility  
UTC = United Technologies Corporation

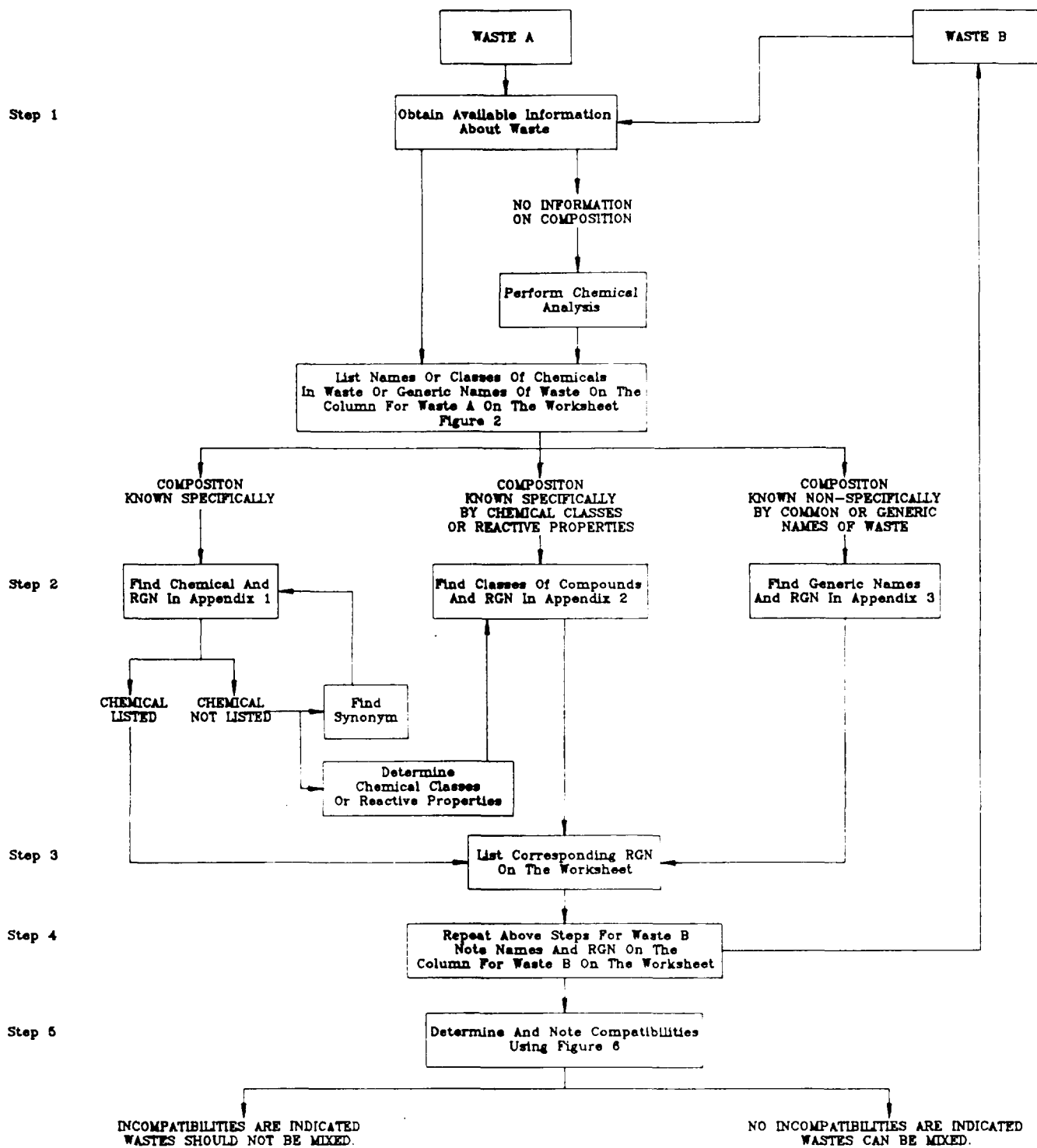


#### IV. COMPATIBILITY TESTING

##### A. EXISTING WASTE STREAMS

Compatibility evaluations of waste materials is necessary to insure proper management of wastes. Commingling of incompatible waste materials can result in undesired and dangerous reactions. To evaluate the potential for such undesired reactions, the existing waste streams at the Pratt & Whitney East Hartford facility have been reviewed for compatibility. The guidance material utilized for the evaluations performed was an EPA document entitled "A Method for Determining the Compatibility of Hazardous Wastes", EPA/600/14, April, 1980. This EPA document presents a methodology for binary evaluations of waste materials based on "reactivity group numbers" (RGNs) which are assigned to waste materials utilizing various tables within the guidance. The evaluation method after the assignment of RGNS is presented in a flow diagram attached as Figure 1. This flow diagram has been reproduced from the guidance document for convenience in understanding the basic approach.

The consequences of commingling of incompatible materials have been categorized into twelve basic classes in the EPA guidance



Note: 1. Reactivity Group Numbers

Figure 1. Flow Diagram For Determining Hazardous Waste Compatibility.

document. These twelve classes are; 1) heat generation, 2) fire, 3) gas formation, 4) formation of toxic fumes, 5) generation of flammable gases, 6) volatilization of toxic or flammable substances, 7) formation of substances of greater toxicity, 8) production of shock and friction-sensitive compounds, 9) pressurization in closed vessels, 10) solubilization of toxic substances, 11) dispersal of toxic dusts, mists, and particles and 12) violent polymerization. These potential reactions encompass the range of reactions which could be anticipated for the waste materials managed at P&W and have therefore been utilized in the compatibility evaluations. The single exception is reaction #10, solubilization of toxic substances which has not been considered an incompatible reaction. The justification for this is described in further detail in subsequent portions of this compatibility evaluation.

The methodology presented in the EPA document has several important limitations. The guidance was developed on the assumption that waste interactions are due to the reactions produced by pure chemicals in the wastes. A further assumption was that the chemicals react at ambient temperature and pressure and that the reactivities are uninfluenced by concentration, synergistic and/or antagonistic

effects. Thus, unless virtually pure materials are mixed, the reactions anticipated by the EPA document may not occur as predicted. Lastly and perhaps most important is the fact that the guidance only performs binary comparisons of materials. That is, only two RG numbers can be evaluated at one time. Thus, if a ternary or quarternary combination of RGs results in an incompatibility, it will not be reflected in the methodology presented in the guidance. However, evaluations have been conducted in accordance with the guidance to estimate potential adverse reactions.

The first step in the waste compatibility determinations was to assign RGs to the waste materials managed at the facility. The master list of waste materials handled at the facility is presented as Table 3 in Appendix C-2. This list contains both RCRA hazardous and RCRA nonhazardous waste materials. The basic information sources utilized in the assignment of RGs were the process solutions (PS) descriptions, the MSD sheets for raw materials from which wastes were derived and any available waste specific knowledge contained in documented form. Waste constituent information obtained from the various sources for each waste managed at the facility as well as the assigned RGs are presented in Table 4 contained in Appendix C-2. It

should be noted that several RGNs can be assigned to any particular waste based on the actual constituent makeup of the waste. Further, there will be some materials which have no RGNs assigned to them. This set of materials will be primarily occupied by lab pack wastes. Since each lab pack contains a unique set of waste materials, RGNs can only be assigned upon creation of the lab pack itself. Once RGNs have been assigned to the lab packs they will be handled as described in Section B, "Future Waste Streams".

Once the RGNs have been assigned to each existing waste material it is then necessary to compare each RGN of each waste to each RGN of every other waste to determine if any incompatibilities exist. The determination of compatibility was based on a compatibility matrix contained in the EPA guidance. A reproduction of the matrix is presented as Figure 2. If incompatibilities exist the waste materials are then considered exclusive and they cannot be stored within the same storage area nor can they be mixed within a common tank. The only exception to this would be in the case of a "paper chase" incompatibility which has been shown to be compatible based on actual laboratory testing. This exception will be explained in further detail in a subsequent portion of this document.

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It is apparent from a review of Table 3 that a significant number of comparisons are necessary to evaluate all of the waste materials managed at P&W. To facilitate this task in a manageable manner a computer program was written to perform the comparisons. The compatibility matrix was input into the program as a "truth table" for comparisons and each waste was compared with each other. These comparisons were iterated until all waste materials had been reviewed and placed into a distinct category in which all contributing wastes are compatible. Program documentation and source code are attached in Appendix C-3.

It should be noted that one alteration of the EPA matrix was incorporated into the program. This alteration consisted of removing the incompatibility designation for materials that are soluble in another material. The EPA guidance includes solubilization as an incompatibility because of the potential to transport the solubilized constituents into the environment. Thus, there is no physical incompatibility for materials that fall within this incompatibility designation. Since storage or treatment of waste materials will occur at P&W and these activities will occur within approved storage and treatment units the possibility for release to the environment is negligible. Therefore since an actual incompatibility does not

exist, it was eliminated from consideration in the evaluations performed. Some waste materials contain constituents which according to the guidance makes the waste "self-incompatible". Obviously this situation does not exist but does demonstrate a manifestation of the limitations of the guidance. A typical example of a self-incompatibility would be an acid waste material which has previously been mixed with water to arrive at a desired concentration for production use. When assigning RGNs to such a material once it becomes a waste, both an acid RGN would be assigned as well as water RGN. Since a water RGN and an acid RGN are incompatible utilizing the guidance matrix, the material is then "self-incompatible". The program developed contains a subroutine to flag self-incompatibles and remove them from the main program. Once removed the self-incompatible materials are evaluated manually and inserted into an appropriate category.

The output of the program is a series categories within which all RGNs included are compatible. Given that bulk liquids and containerized materials are distinctly different in their management scenarios, separate evaluations were made for these two types of materials. Table 5 presents the categories determined for bulk liquids and for containerized materials. Any waste material which



TABLE 5  
WASTE COMPATIBILITY CATEGORIES  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT

<u>CATEGORY DESIGNATION</u>	<u>COMPATIBLE RGNS</u>
<u>I. CONTAINERS</u>	
C-A	1, 2, 24
C-B	2, 24, 104
C-C	10, 15, 24, 104, 106
C-D	1, 3
C-E	7, 11, 14, 15, 16, 22, 23, 24, 33, 101
C-F	14, 16, 17, 19, 29, 34, 101, 106
C-G	4, 14, 16, 17, 19, 24, 28, 101
<u>II. TANKS</u>	
T-A	2, 107
T-B	1, 2, 24
T-C	2, 24, 104
T-D	1, 3, 24
T-E	10, 15, 24, 104, 106
T-F	7, 8, 14, 16, 28, 29, 101
T-G	4, 7, 10, 11, 14, 16, 24, 28, 29, 31, 101, 106
T-H	4, 13, 14, 16, 17, 19, 24, 28, 29, 31, 32, 33, 101
T-I	4, 5, 14, 16, 17, 24, 101, 106
T-J	13, 103

contains an RGN(s) also listed, in total, within any particular category is then acceptable for storage within that category. There are of course hundreds of different combinations of waste materials and categories and it has thus not been attempted to define all of these perturbations. For instance, waste material 4185 has been assigned RGNs of 24 and 101. If this material is containerized, it would be acceptable for storage in the category C-E or category C-G storage area. Thus it must be recognized that any particular waste material may have more than one appropriate location for storage.

Additionally, as noted above, the category determinations utilized a computer program to sort the waste materials, compare the waste RGNs to the EPA guidance matrix and produce an output of compatible RGN categories. It should be clear that the program utilized is not the only program which can perform these evaluations and no optimization routines are incorporated into the program. At some future date, P&W may desire to revise or rewrite the program utilized for category determinations. Should this be the case, P&W will process a permit modification through Connecticut DEP and EPA providing justification for such a restructuring of the category determinations.

B. FUTURE WASTE STREAMS

It is important to consider the fact that new materials will come into the overall waste stream with time as new processes and/or new raw materials are incorporated into the business activities at P&W. Similarly, over time some waste materials will drop out of the overall waste stream due to obsolescence of the process or material. Therefore, a procedure must be available to accommodate new materials entering the waste stream as well as materials dropping out of the waste inventory.

To accommodate waste materials dropping out of the waste inventory, there is no required action to be taken unless P&W desires to optimize the category designations. That is, if a waste type containing a unique RGN is removed from the overall inventory, there is no need to restructure the category designations. There will simply exist an additional RGN compatible with the category which is no longer used.

In the case of a new waste type, the same basic procedure will be utilized as was utilized in the initial structuring of this

overall evaluation. That is, the waste will be assigned appropriate RGNs based on process solution descriptions, MSD sheet information and any additional chemical specific information documented on the waste. If, after assigning RGNs to the new waste material, there isn't a category which can accommodate all of the assigned RGNs, the computer program will be rerun to establish categories which will accommodate all RGNs. Here again, the only exception to this will be in the case of laboratory testing performed to demonstrate compatibility with all waste RGNs within the proposed category. It is presumed here that a new waste type will fall into an existing EPA waste code already authorized on the Part A application. If any new waste type is not already authorized within the Part A, then a permit modification will be initiated prior to managing the waste.

In addition to new waste materials entering the waste inventory, there will be situations where RGNs were either incorrectly assigned or where, although a waste materials has been assigned an RGN due to a particular constituent, the concentration of the constituent is too low to actually impart the characteristics of the assigned RGN. Further, since the majority of assigned RGNs originated from raw materials information there will also be cases where a particular constituent or property is consumed or eliminated

through process use. In such situations it may be desired to adjust the initial assigned RGN to one that more appropriately reflects the actual constituents or properties of the waste.

To accommodate such situations, P&W will apply their specific knowledge of a waste material or results of analytical testing when reviewing/revising RGNs. P&W will document in the operating log any revisions of RGNs with justification. Any waste material that has had an assigned RGN modified through this procedure will then be treated as a "new" waste and the category assignment procedure described in this section shall apply.

C. LABORATORY TESTING FOR COMPATIBILITY

As indicated above it is necessary to have the ability to deviate from the compatibility matrix as presented in the EPA guidance document when valid compatibility testing is performed. This is necessary due to the limitations of the EPA guidance and due to the chemical specific nature of any particular waste type which may or may not be addressed in the guidance. The most limiting aspect of the guidance is the fact that only binary combinations of constituents is addressed and, in virtually every case, the potential for reactions beyond the binary combinations exists.

It is apparent that attempting to evaluate one waste against all potential combinations of wastes within a category is impossible. Therefore a manageable system must be established that insures a reliable, safe evaluation to occur utilizing existing wastes. To accomplish this goal the focus will be on bulk liquids. Materials which are designated as incompatible and are containerized, will simply be placed either within a separate storage area or will be placed within an overpack or similar container which will insure positive separation of the incompatible container with the other containers within the storage area.

Testing to evaluate waste compatibility will occur on an as needed basis at P&W. The basic procedure will be to screen the waste being considered for incorporation into a "non-compatible" environment along with a sample of waste material existing within the tank being evaluated for acceptance of the waste. Screening will be done to provide some foreknowledge for subsequent physical testing of the two waste materials. Screening will consist of testing each waste for pH, separate phase materials, specific gravity, flash point, cyanide, TVO and evaluation of the chemical name of the primary constituents. Not all screening tests will be utilized on every waste material depending on the specific nature of the waste. P&W will apply their knowledge of the waste to determine the appropriate set of screening tests. For instance, an aqueous waste such as an acid solution will generally not have a flashpoint determination conducted due to the known lack of combustible materials within the waste. In all cases where a specific screening test is eliminated, P&W will document such elimination and the justification therefor in the operating log.

The results of the screening will be reviewed to determine if the potential for any extreme reactions is possible. If extreme reactions are anticipated based on the screening testing, then the two wastes will no longer be considered for evaluation as compatibility.

If on the other hand a review of the screening testing does not indicate the potential for extreme reactions, further physical testing will occur. This testing will entail the physical mixing of the two waste materials under controlled conditions. The procedure will be as follows:

1. Samples of the two waste materials will be obtained in sufficient volume to complete the testing described herein. At a minimum, one liter of each waste type will be procured. The waste samples collected shall be representative of the entire waste volume and shall be collected utilizing precleaned, dedicated sampling equipment. From these collected samples a 10 milliliter aliquot will be removed and will then be completely and thoroughly mixed under a laboratory hood. The mixture will then be examined for evidence of any of the characteristics of incompatible wastes as explained in Section



IV.A. Since some reactions can be delayed from the time of initial mixing, the observations shall be continued for at least 15 minutes from the time of initial mixing. If no evidence of incompatibility is noted within the 15 minute observation period, the testing will continue to step 2.

2. Utilizing volumes of the two waste types in approximate proportion to that which will be mixed should the testing provide positive results and utilizing no less than 1 liter of total volume, the two waste types will be mixed completely and thoroughly in a manner as close to that which will exist under actual waste mixing conditions. The sequence and rate of addition of the two waste types shall also simulate the actual conditions to the maximum extent possible. Mixing shall occur under a laboratory hood. Once mixed, the mixture will be observed for at least 30 minutes for any signs of extreme reactions. The results of the testing performed and the observations made will then be recorded.

If the results of the screening test and the physical tests do not indicate an incompatible material, the two wastes will be considered as compatible and commingling of the two waste types will be authorized. Conversely, if evidence of extreme reaction is noted, the materials will be considered incompatible and shall not be commingled. The results of all testing and observations will be documented and recorded in the operating log of the facility.

D. MATERIAL HAZARD RATINGS

Material hazard ratings have been assigned to the waste materials managed at the P&W facility. These ratings have been assigned utilizing the wastes constituents identified through the procedures presented in Section IV.A. above. Since the typical waste has several constituents, the hazard ratings for the most severe condition have been assigned. Hazard ratings were assigned using the procedure presented in NFPA document "Fire Protection Guide on Hazardous Materials, 9th Edition, NFPA, 1990. This document contains NFPA documents 325M, 49, 491M and 704 and provides thorough coverage of hazard ratings. Additionally, the "Merck Index", 10th Edition, Merck & Co., Inc., 1983 was also consulted for chemical specific information as well "Dangerous Properties of Industrial Materials", Sixth Edition, N.Irving Sax. Table 6 attached in Appendix C-4 presents the hazard rating assigned to each waste type handled at the facility. In some cases insufficient information exists to assign hazard ratings. This is due to either lack of chemical specific data or lack of assigned hazard ratings within the literature reviewed. Given the dynamic nature of any waste analysis plan, as information becomes available these ratings will be reviewed and additions, deletions and/or corrections will be made on an ongoing basis.

E. CONTAINER COMPATIBILITY

In addition to waste compatibility between different waste types, it is necessary that the container or tank holding any particular waste material be compatible with its contents. An evaluation of the waste materials managed at P&W versus acceptable container types has therefore been performed. Literature from tank and container manufacturers has been utilized to determine material compatibility. As in the case of waste compatibility evaluations, there are limitations to this container compatibility review. It is typical that a manufacturer will specify container or tank compatibility based on a single material at a specific concentration and a given temperature. For instance, nitric acid is compatible with high density polyethylene at concentrations up to 30 percent and temperatures up to 140 degrees F. Beyond these limits this material is not compatible with nitric acid. The evaluation of container compatibility utilized in this document assumes ambient temperature of the waste material and where available, utilizes the chemical concentration of the waste material. When the chemical concentration of a waste material is not available or is known to be less than the minimum concentration reflected in the manufacturer's data, the

container material is listed as compatible. Table 7 attached in Appendix C-5 presents the container compatibility listings.

As with the case of RGN assignments, container compatibility has been evaluated based on certain assumptions. Since manufacturers typically address only single component materials and only at significant concentrations, i.e. percentage range, and considering the fact that most waste materials are multi-component materials, it is inevitable that incompatibilities will manifest themselves where an actual compatibility problem does not exist. In such cases, P&W will apply their knowledge of the waste and its properties when selecting container materials. Deviations from the compatible materials presented in Table 6 will be documented and justified in the facility operating log.

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APPENDIX C-2  
WASTE MATERIALS, CONSTITUENTS & ASSIGNED RGNS

TABLE 3  
WASTE MATERIALS MANAGED  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	CHEMICAL CONSTITUENTS
0001	NITRIC ACID (PMC 1000)
0001	NITRIC ACID (PMC 1000)
0002	CHROMIC ACID (PMC 1001)
0003	MURIATIC ACID (PMC 1002)
0003	MURIATIC ACID (PMC 1002)
0008	HYDROFLUORIC ACID
0014	OXALIC ACID (PMC 1016)
0022	SULFURIC ACID
0023	ALKALI CLEANER (LIGHT DUTY) (PMC 1252)
0025	ALKALI CLEANER (LIGHT DUTY) (PMC 1255)
0026	ALKALI CLEANER (HEAVY DUTY)
0035	ALKALINE RUST REMOVER (PMC 1269)
0038	ALKALI CLEANER (PMC 1272)
0047	ALKALI CLEANER (SPRAY WASHER TYPE) (PMC 1282)
0049	ALKALI CLEANER (GEN. PURP.) (PMC 1284)
0075	BLACK OXIDE SALTS (FUSED) (PMC 1504)
0076	SODIUM CYANIDE (PMC 1505)
0153	WETTING AGENT (PMC 1610)
0199	AMMONIUM HYDROXIDE, CONCENTRATED (PMC 1667)
0199	AMMONIUM HYDROXIDE, CONCENTRATED (PMC 1667)
0200	AMMONIUM HYDROXIDE, DILUTE (PMC 1668)
0200	AMMONIUM HYDROXIDE, DILUTE (PMC 1668)
0259	IND X-RAY AUTO DEVLP REPLN SOLU. (PMC 1739)
0315	CHEMICAL MILLING MASKANT (PMC 1801)
0316	SODIUM HYDROXIDE (LIQUID) (PMC 1803)
0316	SODIUM HYDROXIDE (LIQUID) (PMC 1803)
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)
0319	SODIUM HYDROXIDE (PMC 1807)
0319	SODIUM HYDROXIDE (PMC 1807)
0333	X-RAY ACETIC ACID STOP BATH (PMC 1821)
0562	LIQUID POLISHING COMPOUND (PMC 3134)
0616	LAYOUT AND IDENTIFICATION DYE (PMC 4039)
0617	PURPLE MARK INK-PORUS RUB STMPs (PMC 4040)
0619	PURPLE INK SOLVENT (ETH GLY MON ETH) (PMC4042)
0630	INK, METAL MARKING (PMC 4057)
0688	CEMENT (DECALCOMANIA) (PMC 4158)
0893	SOLVENT, STODDARD (PMC 9001)
0893	SOLVENT, STODDARD (PMC 9001)
0893	SOLVENT, STODDARD (PMC 9001)
0893	SOLVENT, STODDARD (PMC 9001)
0894	OIL, MINERAL SEAL (PMC 9002)
0899	ACETONE (PHENOL FREE) (PMC 9008)
0899	ACETONE (PHENOL FREE) (PMC 9008)
0901	PETROLEUM SOLVENT (PMC 9010)
0901	PETROLEUM SOLVENT (PMC 9010)
0901	PETROLEUM SOLVENT (PMC 9010)
0904	KEROSENE (PMC 9021)

TABLE 3  
WASTE MATERIALS MANAGED  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	CHEMICAL CONSTITUENTS
0905	THINNER, LACQUER (GEN. PURP.) (PMC 9022)
0905	THINNER, LACQUER (GEN. PURP.) (PMC 9022)
0905	THINNER, LACQUER (GEN. PURP.) (PMC 9022)
0919	ELECTRIC MOTOR CLEANER (PMC 9054)
0922	ALKALINE DRAWING COMPOUND REMOVER (PMC 9057)
0940	METHYL ETHYL KETONE (PMC 9076)
0940	METHYL ETHYL KETONE (PMC 9076)
0940	METHYL ETHYL KETONE (PMC 9076)
0943	ALKALINE RUST STRIPPER (PMC 9081)
0951	METHANOL (PMC 9089)
0956	ISOPROPYL ALCOHOL, TECH. GRADE (PMC 9094)
0957	METAL CLEANER (PMC 9095)
0963	SFT FM COR & COMP MIL-CL11796 (PMC 9109)
0970	COR PREV COMP FNGRPRNT MIL-C-15074 (PMC 9118)
0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)
0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)
0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)
0985	GRIND. COMP, OIL-TYPE (STAND. DTY) (PMC 9205)
0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)
0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)
0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)
0999	HI SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)
0999	HI SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)
1000	LOW SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)
1000	LOW SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)
1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)
1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)
1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)
1022	INHIBITED ETHYLENE GLYCOL (PMC 9380)
1022	INHIBITED ETHYLENE GLYCOL (PMC 9380)
1030	FLUORESCENT EMULSIFIER (PMC 9408)
1056	RED DYE (PMC 9505)
1085	MASKING WAX COMPOUND (PMC 9551)
1085	MASKING WAX COMPOUND (PMC 9551)
1126	TABLE WAY OIL (PMC 9600)
1216	HYDRAULIC OIL (PMC 9805)
1216	HYDRAULIC OIL (PMC 9805)
1216	HYDRAULIC OIL (PMC 9805)
1216	HYDRAULIC OIL (PMC 9805)
1217	LUBRICATING & HYDRAULIC OIL (PMC 9807)
1217	LUBRICATING & HYDRAULIC OIL (PMC 9807)
1218	HYDRAULIC OIL (600 SECOND VISCOSITY) (PMC 9810)
1226	HYDRAULIC OIL, 150 SUS (PMC 9826)
1232	INHIBITED HYDRAULIC OIL (PMC 9834)
1232	INHIBITED HYDRAULIC OIL (PMC 9834)
1236	HYD FLUID FIRE RES VISC APPX 45045C (PMC9843)
1251	AUTOMOTIVE CRANKCASE OIL (SAE 30) (PMC 9859)
1253	VACUUM PUMP OIL (PMC 9862)
1253	VACUUM PUMP OIL (PMC 9862)
1261	OIL, AUTOMOTIVE ENGINE LUB SAE 30 (PMC 9871)



TABLE 3  
WASTE MATERIALS MANAGED  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	CHEMICAL CONSTITUENTS
1271	SILICONE LIQUID (PMC 9890)
1305	PARTING COMPOUND (PMC 9963)
1314	DEVELOPER (PMC 4381)
1501	ANODIZING SOLUTION (PS 1)
1501	ANODIZING SOLUTION (PS 1)
1502	MURIATIC ACID SOLUTION-20% (PS 3)
1507	NITRIC ACID SOLUTION - 10% (PS 9)
1509	NITRIC ACID SOLUTION - 50% (PS 11)
1509	NITRIC ACID SOLUTION - 50% (PS 11)
1509	NITRIC ACID SOLUTION - 50% (PS 11)
1509	NITRIC ACID SOLUTION - 50% (PS 11)
1509	NITRIC ACID SOLUTION - 50% (PS 11)
1509	NITRIC ACID SOLUTION - 50% (PS 11)
1510	PHOSPHORIC ACID SOLUTION - 70% (PS 12)
1510	PHOSPHORIC ACID SOLUTION - 70% (PS 12)
1512	NICKEL STRIKE SOLUTION (PS 14)
1522	SULFURIC ACID SOLUTION - 40% (PS 25)
1522	SULFURIC ACID SOLUTION - 40% (PS 25)
1527	INHIBITED ACID SOLUTION - 100% (PS 31)
1527	INHIBITED ACID SOLUTION - 100% (PS 31)
1527	INHIBITED ACID SOLUTION - 100% (PS 31)
1527	INHIBITED ACID SOLUTION - 100% (PS 31)
1531	CHROMATE CONVERSION SOLUTION (PS 36)
1532	ACID CLNR/WELDABLE AMS4026 AL ALLY (PS 37)
1533	TITANIUM ETCHING SOLUTION (PS 38)
1540	INHIBITED ACID SOLUTION (PS 47)
1541	NITRIC-HYDROFLUORIC SOLUTION (PS 48)
1541	NITRIC-HYDROFLUORIC SOLUTION (PS 48)
1541	NITRIC-HYDROFLUORIC SOLUTION (PS 48)
1542	HYDROFLUORIC-NITRIC ACID SOLU. (PS 49)
1542	HYDROFLUORIC-NITRIC ACID SOLU. (PS 49)
1543	SULFURIC ACID SOLUTION - 10% (PS 50)
1543	SULFURIC ACID SOLUTION - 10% (PS 50)
1545	CAUSTIC SODA SOLUTION - 3% (PS 52)
1545	CAUSTIC SODA SOLUTION - 3% (PS 52)
1546	MURIATIC ACID - 65% (PS 53)
1546	MURIATIC ACID - 65% (PS 53)
1546	MURIATIC ACID - 65% (PS 53)
1546	MURIATIC ACID - 65% (PS 53)
1547	SULFURIC-HYDROFLUORIC ACID SOLU. (PS 54)
1557	ANODIZE SEAL SOLUTION (PS 66)
1557	ANODIZE SEAL SOLUTION (PS 66)
1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)
1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)
1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)
1585	ALUMINUM BRAZING SALT BATH (PS 103)
1593	PAINT STRIPPING SOLUTION (PS 110)
1594	SILVER-COPPER-PALLADIUM BRAZE ALLOY (PS 112)
1597	CHROMIUM PLATING SOLUTION (PS 115)
1598	CHROMIC ACID SOLUTION (PS 116)

TABLE 3  
WASTE MATERIALS MANAGED  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	CHEMICAL CONSTITUENTS
1601	CHROMIUM PLATING SOLUTION (PS 119)
1601	CHROMIUM PLATING SOLUTION (PS 119)
1604	COPPER STRIP SOLU. (NONELECTROLYT)(PS 122)
1607	NITRIC ACID SOLU. - 20% (AIRPORTS)(PS 126)
1607	NITRIC ACID SOLU. - 20% (AIRPORTS)(PS 126)
1607	NITRIC ACID SOLU. - 20% (AIRPORTS)(PS 126)
1612	PAINT STRIPPING SOLUTION (PS 131)
1612	PAINT STRIPPING SOLUTION (PS 131)
1628	ANODIZE SEALING SOLUTION (PS 148)
1649	ALKALI SMUT REMOVAL SOLUTION (PS 211)
1649	ALKALI SMUT REMOVAL SOLUTION (PS 211)
1652	ALKALI CLEAN. (HVY DTY) DRAWING COM (PS 214)
1653	ALKALI CYANIDE CLEAN. SOLU (HVY DTY)(PS 215)
1657	DESCALING SOLUTION (PS 222)
1657	DESCALING SOLUTION (PS 222)
1657	DESCALING SOLUTION (PS 222)
1657	DESCALING SOLUTION (PS 222)
1657	DESCALING SOLUTION (PS 222)
1657	DESCALING SOLUTION (PS 222)
1660	11% SODIUM HYDROXIDE SOLUTION (PS 225)
1660	11% SODIUM HYDROXIDE SOLUTION (PS 225)
1674	CHEMICAL MILLING SOLUTION (PS 249)
1674	CHEMICAL MILLING SOLUTION (PS 249)
1677	WATER INHIBITOR SOLUTION (PS 253)
1678	ALKALI CLEANER SOLUTION (PS 254)
1689	SULFURIC ACID-SODIUM DICHROMATE SOL (PS 267)
1690	ELECTROCHEMICAL MACHINING (PS 269)
1701	ALCOHOL WATER RINSE (PS 279)
1703	COLUMBIUM CLEANING SOLUTION (PS 281)
1711	CYANIDE SOLUTION (PS 302)
1715	SILVER PLATE SOLUTION (PS 306)
1718	COPPER PLATING SOLUTION (PS 309)
1719	COPPER & SILVER STRIP SOLUTION (PS 310)
1725	NICKEL STRIP SOLUTION (PS 316)
1730	NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)
1730	NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)
1730	NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)
1740	CORCRALY CTRIPPING SOLUTION (PS 331)
1740	CORCRALY CTRIPPING SOLUTION (PS 331)
1740	CORCRALY CTRIPPING SOLUTION (PS 331)
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)
1760	COPPER STRIP SOLUTION (PS 481)
1762	CHROMATE CONVERSION SOLUTION IMMERS (PS 486)
1764	CHROMIC-PHOSPHORIC ACID ANODIZE SOL (PS 488)
1764	CHROMIC-PHOSPHORIC ACID ANODIZE SOL (PS 488)
1766	FERRIC CHLORIDE SOLUTION (PS 503)
1766	FERRIC CHLORIDE SOLUTION (PS 503)

TABLE 3  
WASTE MATERIALS MANAGED  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	CHEMICAL CONSTITUENTS
1766	FERRIC CHLORIDE SOLUTION (PS 503)
1766	FERRIC CHLORIDE SOLUTION (PS 503)
1782	CADMIUM STRIP SOLUTION (PS 590)
1787	ANODIZE TOUCH-UP SOLUTION IMMER MET (PS 605)
1787	ANODIZE TOUCH-UP SOLUTION IMMER MET (PS 605)
1789	ANDOIZE TOUCH-UP SOLU. BRSH/SWAB (PS 607)
1810	ETCH INSPECTION ACID SAL SOLU. (PS 631)
1813	TITANIUM ANODIZING SOLUTION (PS 634)
1814	NITRIC ACID SOLUTION - 70% (PS 635)
1815	HYDROCHLORIC ACID SOLUTION - 100% (PS 636)
1818	HYDROPHILIC EMULSIFIER SOLUTION (PS 639)
1821	NICKEL STRIP SOLUTION (NON CYANIDE) (PS 644)
1821	NICKEL STRIP SOLUTION (NON CYANIDE) (PS 644)
1821	NICKEL STRIP SOLUTION (NON CYANIDE) (PS 644)
1822	HYDROFLUORIC-NITRIC ACID SOLU. (PS 645)
1825	NITRIC-HYDROFLUORIC SOLUTION (PS 648)
1827	INHIBITED ACID SOLUTION - 10% (PS 653)
2452	LUBRICANT AIRCRAFT TURBINE ENGINE (PWA 521)
2452	LUBRICANT AIRCRAFT TURBINE ENGINE (PWA 521)
2457	ANTI GALLING COMPOUND (PWA 586)
3003	CHLORINATED SOLVENTS (MIXTURE)
3003	CHLORINATED SOLVENTS (MIXTURE)
3003	CHLORINATED SOLVENTS (MIXTURE)
3005	CYANIDE (MIXTURE)
3005	CYANIDE (MIXTURE)
3006	ZYGLO RINSE
3006	ZYGLO RINSE
3006	ZYGLO RINSE
3006	ZYGLO RINSE
3007	SOLUBLE OIL
3007	SOLUBLE OIL
3007	SOLUBLE OIL
3007	SOLUBLE OIL
3007	SOLUBLE OIL
3007	SOLUBLE OIL
3008	CONCETRATED ZYGLO (MIXTURE)
3008	CONCETRATED ZYGLO (MIXTURE)
3008	CONCETRATED ZYGLO (MIXTURE)
3010	HIGH FLASH SOLVENTS (MIXTURE)
3011	LOW FLASH SOLVENTS (MIXTURE)
3011	LOW FLASH SOLVENTS (MIXTURE)
3011	LOW FLASH SOLVENTS (MIXTURE)
3011	LOW FLASH SOLVENTS (MIXTURE)
3011	LOW FLASH SOLVENTS (MIXTURE)
3013	PCB CONTAMINATED BURNABLE LIQUID
3013	PCB CONTAMINATED BURNABLE LIQUID
3013	PCB CONTAMINATED BURNABLE LIQUID
3013	PCB CONTAMINATED BURNABLE LIQUID
3013	PCB CONTAMINATED BURNABLE LIQUID
3027	MIXED ACIDS

TABLE 3  
WASTE MATERIALS MANAGED  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	CHEMICAL CONSTITUENTS
3027	MIXED ACIDS
3027	MIXED ACIDS
3027	MIXED ACIDS
3027	MIXED ACIDS
3027	MIXED ACIDS
3028	MIXED ALKAIES
3028	MIXED ALKALIES
3028	MIXED ALKAIES
3030	MIXED CHROME
3030	MIXED CHROME
3030	MIXED CHROME
3030	MIXED CHROME
3030	MIXED CHROME
3032	DILUTED WASTE WATER
3032	DILUTED WASTE WATER
3032	DILUTED WASTE WATER
3032	DILUTED WASTE WATER
3032	DILUTED WASTE WATER
3032	DILUTED WASTE WATER
3032	DILUTED WASTE WATER
3033	COLT STREET OIL
3033	COLT STREET OIL
3034	HIGH & LOW FLASH SOLVENT MIXTURES
3034	HIGH & LOW FLASH SOLVENT MIXTURES
3034	HIGH & LOW FLASH SOLVENT MIXTURES
3037	MINERAL OIL FROM DEWAXING
3040	MIXTURE OF HYDRAULIC, LUB, CUTTING OIL
3040	MIXTURE OF HYDRAULIC, LUB, CUTTING OIL
3058	DEOXIDIZER SOLUTION (PS 174)
3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)
3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)
3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)
3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)
3065	ALKALI CLEANER (LOW TEMP.) (PS 350)
3067	SULFURIC ACID & MURIATIC ACID (PS 352)
3068	PHOSPHORIC ACID INHIBITOR (PS 21)
3070	SODIUM BISULFATE & WATER (SPMC-14)
3091	#6 FUEL OIL & WATER
3091	#6 FUEL OIL & WATER
3091	#6 FUEL OIL & WATER
3097	HYDROGEN PEROXIDE SOLUTION (SPS 82)
3099	CUTTING POLYMER-NALCO 2175 (PMC 9331)
4048	OIL WITH CHLORINATED SOLVENTS
4048	OIL WITH CHLORINATED SOLVENTS
4048	OIL WITH CHLORINATED SOLVENTS
4048	OIL WITH CHLORINATED SOLVENTS
4048	OIL WITH CHLORINATED SOLVENTS
4048	OIL WITH CHLORINATED SOLVENTS
4049	B3 OIL WITH HALOGENATED SOLVENTS
4049	B3 OIL WITH HALOGENATED SOLVENTS

TABLE 3  
WASTE MATERIALS MANAGED  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	CHEMICAL CONSTITUENTS
4050	B2 OIL W/1000 PPM TOTAL HALOGEN
4050	B2 OIL W/1000 PPM TOTAL HALOGEN
4050	B2 OIL W/1000 PPM TOTAL HALOGEN
4050	B2 OIL W/1000 PPM TOTAL HALOGEN
4050	B2 OIL W/1000 PPM TOTAL HALOGEN
4051	B1 OIL
4051	B1 OIL
4051	B1 OIL
4051	B1 OIL
4051	B1 OIL
4051	B1 OIL
4051	B1 OIL
4057	HIGH FLASH OIL (PMC 9252, 9015)
4059	CHLORINATED SOLVENT (PMC 9356)
4059	CHLORINATED SOLVENT (PMC 9356)
4061	ALKALI CLEANER (PS 362)
4063	ELECTROLESS NICKEL PLATING SOLU. (PS 359)
4085	SOLVENT (PMC 9828)
4100	PETROLEUM SOLVENT
4111	BETZ ENTEC 312
4127	MIXED WASTE ACID
4127	MIXED WASTE ACID
4128	POTASSIUM HYDROXIDE
4128	POTASSIUM HYDROXIDE
4131	1,1,1 TRICLOR & WATER
4131	1,1,1 TRICLOR & WATER
4131	1,1,1 TRICLOR & WATER
4131	1,1,1 TRICLOR & WATER
4139	SODIUM HYDROXIDE SOLUTION
4139	SODIUM HYDROXIDE SOLUTION
4148	CORROSION INGIBITOR (OIL BASED) (PMC 9332)
4168	POLYOXALKYLATED GLYCOL PART B (PMC 4118)
4174	PERCHLOROETHYLENE AND WATER
4174	PERCHLOROETHYLENE AND WATER
4176	BERYLLIUM COMPOUND
4186	ETHYLENE GLYCOL (NON RCRA LIQUIDS)
4186	ETHYLENE GLYCOL (NON RCRA LIQUIDS)
4186	ETHYLENE GLYCOL (NON RCRA LIQUIDS)
4190	HYDROGEN PEROXIDE (SPS 96)
4192	GASOLINE
4194	PENETRANT (PMC 4350)
4194	PENETRANT (PMC 4350)
4194	PENETRANT (PMC 4350)
4195	ALKALINE PHOTOGRAPIC DEVELOPER
4195	ALKALINE PHOTOGRAPIC DEVELOPER
4196	ACID PHOTOGRAPHIC CHEMICAL
4196	ACID PHOTOGRAPHIC CHEMICAL
4197	ACID PHOTOGRAPHIC FIXER
4198	ALKALINE PHOTOGRAPHIC CHEMICAL
4198	ALKALINE PHOTOGRAPHIC CHEMICAL

TABLE 3  
WASTE MATERIALS MANAGED  
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ITEM	CHEMICAL CONSTITUENTS
4205	FLUORESCENT PENETRANT (HI SENS.) (PMC 4353)
4208	ZYGLO (PMC 4354)
4216	PROPYLENE GLYCOL (PMC 1867)
4216	PROPYLENE GLYCOL (PMC 1867)
4217	PETROLEUM DISTILLATE
4221	SUPER AGITENE-CLEANING COMPOUND
4223	OIL TO4225 (TRAIL ORDER) (4225)
4235	ELECT> DISCHARGE MACH EDM FLUID (PCM9239)
4236	HI SPEED CUTTING OIL, HVY DTY (PMC 9252)
4237	LOW SPEED CUTTING OIL, HVY DTY (PMC 9253)
4239	METAL CUTTING COMPOUND, OIL TYPE (PMC 9214)
4242	SPINDLE LUBRICATING OIL (PMC 9801)
4243	COMPOUNDED HYDRAULIC OIL (PMC 9814)
4248	ETCHING SOLUTION (HMI) 5% $\text{HNO}_3$
4250	ALKALINE ULTRASONIC CLEANER (SPMC - 7)
4251	CITRIKLEEN AND WATER (PMC 9090)
4255	W WATER W/CL HYDROCARBON-NON-HAZ
4255	W WATER W/CL HYDROCARBON-NON-HAZ
4255	W WATER W/CL HYDROCARBON-NON-HAZ
4269	JET FUEL WITH CHLORINATED SOLVENTS
4269	JET FUEL WITH CHLORINATED SOLVENTS
4270	DILUTE OILY WASTE WATER
4270	DILUTE OILY WASTE WATER
4270	DILUTE OILY WASTE WATER
4270	DILUTE OILY WASTE WATER
4271	WATER W/OIL, TH . 1000 PPM
4271	WATER W/OIL, TH . 1000 PPM
4275	ELECTROLESS NICKEL SOLUTION
4276	WASTE WATER - ALKALI CLEANING TANK
4276	WASTE WATER - ALKALI CLEANING TANK
4284	JET FUEL & WATER
4284	JET FUEL & WATER
4284	JET FUEL & WATER
4288	MACHINING FLUID
4288	MACHINING FLUID
4289	TO 5527
4289	TO 5527
4296	WATER SOLUBLE GLUE - RH (NON RCRA LIQUIDS)
4305	ZINC ACETATE SOLUTION ACID TEST (NON RCRA)
4307	CAUSTIC SODA SOLUTION (PS 292)
4313	ALKALI SOLUTION WITH CHROME
4313	ALKALI SOLUTION WITH CHROME
4313	ALKALI SOLUTION WITH CHROME
4315	PAINT THINNER (NON SPECIFIED)
4320	BIOPEN PENETRANT & WATER
4345	BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)
4345	BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)
4345	BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)
4345	BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)
4346	DILUTE WATER - BULK FUEL TANKS

TABLE 3  
WASTE MATERIALS MANAGED  
PRATT & WHITNEY  
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ITEM	CHEMICAL CONSTITUENTS
4347	FLAMMABLE SOLVENT
4347	FLAMMABLE SOLVENT
4349	ALKALINE CLEANER FOR OIL (PMC 1411, 9271)
4354	ALKALINE DEGREASING
4360	1,1,1,TRICH & WAX - RECLAIM (PMC 9056)
4368	BBX SOLUTION & OIL (NON RCRA LIQUIDS)
4372	NICKEL BRAZE STRIP
4373	BLEND TANK WASTE - MIXTURE
4373	BLEND TANK WASTE - MIXTURE
4379	COLT STREET SKINNER TANK
4379	COLT STREET SKINNER TANK
4382	ALKALINE CLEANER - TURCO 5948
4384	JET FUEL W <50 PPM PCB
4387	ECM SOLV. NON RCRA (PS 251)
0081	SODIUM CARBONATE (PMC 1510)
0084	SILVER PLATE BRIGHTENER (PMC 1513)
0144	CAUSTIC SODA (PMC 1601)
0144	CAUSTIC SODA (PMC 1601)
0149	POTASSIUM HYDROXIDE (PMC 1606)
0890	POTASSIUM HYDROXIDE (PMC 7029)
0890	POTASSIUM HYDROXIDE (PMC 7029)
0890	POTASSIUM HYDROXIDE (PMC 7029)
4116	EPOXY PRIMER (PWA 568,569, PMC 9076)
4116	EPOXY PRIMER (PWA 568,569, PMC 9076)
4116	EPOXY PRIMER (PWA 568,569, PMC 9076)
4212	ORGANIC PEROXIDE (PMC 1620)
4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)
4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)
4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)
4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)
4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)
4321	1,1,1, TRICHLOR & WATER (PH,2)(PMC 9056)
0088	ROCHELLE SALT (PMC 1518)
0119	SULFAMIC ACID (PMC 1550)
0127	SODIUM NITRITE (PMC 1558)
0129	SODIUM NITRATE (PMC 1560)
0130	SODIUM CITRATE (PMC 1561)
0133	SALT/DESCALING TITANIUM/TI ALLOY PT (PMC 1566)
0167	CHROMATE CONVERSION SALTS-ALUMINUM (PMC 1631)
0220	CHROMATE CONVERSION SALTS-MAGNESIUM (PMC 1690)
0249	EPOXY RESIN (PMC 1727)
0269	SCREENED CRUDE SULFUR (PMC 1753)
0335	GLASS CERAMIC PRECOAT (GREEN)(PMC 1823)
0336	GLASS CERAMIC PRECOAT (YELLOW)(PMC 1824)
0573	POWDER-CONFINED ABRASIVE FINISH. (PMC 3144)
0684	COMP, PROTEC, STRIP, PLASTIC (PMC 4153)
0895	TRICHLOROETHYLENE (LOW RESIDUE)(PMC 9003)
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)

TABLE 3  
WASTE MATERIALS MANAGED  
PRATT & WHITNEY  
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ITEM	CHEMICAL CONSTITUENTS
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)
0914	SPRAY TYPE CLEANER, BUFFERED ALKALI (PMC9046)
0921	1,1,1-TRICHLOROETHANE (RECLAIM.) (PMC 9056)
0921	1,1,1-TRICHLOROETHANE (RECLAIM.) (PMC 9056)
0921	1,1,1-TRICHLOROETHANE (RECLAIM.) (PMC 9056)
0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)
0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)
0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)
0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)
0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)
0950	PERCHLOROETHYLENE, VAPOR DEGREASER (PMC 9088)
1130	WHITE PETROLATUM (PMC 9609)
1210	BRAZING ALLOY (GREEN STOP) (PMC 9757)
2093	COATING, DIFFUSED ALUMINUM OXIDE (PS 273)
2151	SILICONE RUBBER COMPOUND (PWA 403)
2160	ADHESIVE/SEALANT (PWA 416)
2160	ADHESIVE/SEALANT (PWA 416)
2162	LIQUID EPOXY RESIN (PWA 421)
2162	LIQUID EPOXY RESIN (PWA 421)
2233	COMPOUND, ANTI GALLING (PWA 550)
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)
2467	ALUMINUM COATING (PWA 595)
2470	ABLATIVE COATING COMPOUND (PWA 36752)
3001	WAX/PERCHLOR (RECLAIMABLE)
3002	WAX/PERCHLOR (DISPOSAL)
3002	WAX/PERCHLOR (DISPOSAL)
3002	WAX/PERCHLOR (DISPOSAL)
3002	WAX/PERCHLOR (DISPOSAL)
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)
3014	PCB CONTAMINATED NON-BURNABLES
3014	PCB CONTAMINATED NON-BURNABLES
3014	PCB CONTAMINATED NON-BURNABLES
3014	PCB CONTAMINATED NON-BURNABLES
3016	KOLENE SALTS
3016	KOLENE SALTS
3016	KOLENE SALTS
3016	KOLENE SALTS
3017	ACID FILTERS
3018	CYANIDE FILTERS



TABLE 3  
WASTE MATERIALS MANAGED  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
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ITEM	CHEMICAL CONSTITUENTS
3018	CYANIDE FILTERS
3019	OIL FILTERS
3019	OIL FILTERS
3020	ACID SLUDGE
3020	ACID SLUDGE
3020	ACID SLUDGE
3020	ACID SLUDGE
3021	ALKALI SLUDGE
3021	ALKALI SLUDGE
3021	ALKALI SLUDGE
3021	ALKALI SLUDGE
3021	ALKALI SLUDGE
3021	ALKALI SLUDGE
3022	CHROME SLUDGE
3022	CHROME SLUDGE
3022	CHROME SLUDGE
3023	CYANIDE SLUDGE
3023	CYANIDE SLUDGE
3023	CYANIDE SLUDGE
3024	OIL SLUDGE
3024	OIL SLUDGE
3024	OIL SLUDGE
3024	OIL SLUDGE
3024	OIL SLUDGE
3025	CARBON SLUDGE
3041	ECM FILTER CAKE
3041	ECM FILTER CAKE
3042	WASTE JET FUEL
3042	WASTE JET FUEL
3042	WASTE JET FUEL
3043	OILS/SOLVENTS MIXTURES
3043	OILS/SOLVENTS MIXTURES
3043	OILS/SOLVENTS MIXTURES
3043	OILS/SOLVENTS MIXTURES
3043	OILS/SOLVENTS MIXTURES
3043	OILS/SOLVENTS MIXTURES
3043	OILS/SOLVENTS MIXTURES
3044	PCB BURNABLE SOLIDS
3044	PCB BURNABLE SOLIDS
3044	PCB BURNABLE SOLIDS
3044	PCB BURNABLE SOLIDS
3044	PCB BURNABLE SOLIDS
3046	PAINT SLUDGE
3046	PAINT SLUDGE
3046	PAINT SLUDGE
3046	PAINT SLUDGE
3046	PAINT SLUDGE
3046	PAINT SLUDGE
3046	PAINT SLUDGE
3047	NON-RCRA SOLIDS

TABLE 3  
WASTE MATERIALS MANAGED  
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ITEM	CHEMICAL CONSTITUENTS
3047	NON-RCRA SOLIDS
3071	PCB'S TRANSFORMERS
3071	PCB'S TRANSFORMERS
3083	PCB BURNABLE CAPACITORS (>3#'S OIL)
3083	PCB BURNABLE CAPACITORS (>3#'S OIL)
3083	PCB BURNABLE CAPACITORS (>3#'S OIL)
3085	MAT'LS W/RADIOACTIVE THORIUM
4013	POWDER, PLASMA SPRAY, NICKEL-LLOY (PWA 1317)
4018	POWDER, PLASMA SPRAY (PWA 1322)
4053	JET A FUEL FILTERS
4053	JET A FUEL FILTERS
4053	JET A FUEL FILTERS
4054	RAGS CONTAMINATED WITH JET FUEL
4054	RAGS CONTAMINATED WITH JET FUEL
4054	RAGS CONTAMINATED WITH JET FUEL
4054	RAGS CONTAMINATED WITH JET FUEL
4055	DEBRIS CONT W/9252 & 9015 (PMC 9252,9015)
4056	TRAP ROCK WITH FUEL OIL
4112	METAL HYDROXIDE SLUDGE
4123	CADMIUM
4134	LAB PACKS - COMBUSTIBLES
4134	LAB PACKS - COMBUSTIBLES
4134	LAB PACKS - COMBUSTIBLES
4135	LAB PACKS - FLAMMABLE
4135	LAB PACKS - FLAMMABLE
4135	LAB PACKS - FLAMMABLE
4135	LAB PACKS - FLAMMABLE
4135	LAB PACKS - FLAMMABLE
4136	LAB PACKS - OXIDIZERS
4136	LAB PACKS - OXIDIZERS
4136	LAB PACKS - OXIDIZERS
4140	NICKEL CADMIUM BATTERIES
4141	MERCURY (ST. MANIFEST FOR RECLAIM)
4141	MERCURY (ST. MANIFEST FOR RECLAIM)
4145	SERMETEL CONTAMINATED FILTERS
4145	SERMETEL CONTAMINATED FILTERS
4159	LAB PACKS - ORM-A SOLIDS
4161	LAB PACKS - HW LIQUID OR SOLID
4161	LAB PACKS - HW LIQUID OR SOLID
4161	LAB PACKS - HW LIQUID OR SOLID
4162	LAB PACKS - CORROSIVE SOLIDS
4162	LAB PACKS - CORROSIVE SOLIDS
4163	LAB PACKS - CORROSIVE LIQUIDS
4163	LAB PACKS - CORROSIVE LIQUIDS
4163	LAB PACKS - CORROSIVE LIQUIDS
4163	LAB PACKS - CORROSIVE LIQUIDS
4163	LAB PACKS - CORROSIVE LIQUIDS
4164	LAB PACKS - POISON B LIQUIDS
4164	LAB PACKS - POISON B LIQUIDS
4164	LAB PACKS - POISON B LIQUIDS

TABLE 3  
WASTE MATERIALS MANAGED  
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ITEM	CHEMICAL CONSTITUENTS
4165	LAB PACKS - POISON SOLIDS
4165	LAB PACKS - POISON SOLIDS
4166	LAB PACKS - FLAMMABLE SOLIDS
4166	LAB PACKS - FLAMMABLE SOLIDS
4166	LAB PACKS - FLAMMABLE SOLIDS
4166	LAB PACKS - FLAMMABLE SOLIDS
4171	CHROME CONTAMINATED SOLID WASTE
4171	CHROME CONTAMINATED SOLID WASTE
4171	CHROME CONTAMINATED SOLID WASTE
4171	CHROME CONTAMINATED SOLID WASTE
4178	RAGS/DEBRIS WITH MEK OR TOLUENE
4178	RAGS/DEBRIS WITH MEK OR TOLUENE
4178	RAGS/DEBRIS WITH MEK OR TOLUENE
4178	RAGS/DEBRIS WITH MEK OR TOLUENE
4178	RAGS/DEBRIS WITH MEK OR TOLUENE
4178	RAGS/DEBRIS WITH MEK OR TOLUENE
4183	PCB FLUORESCENT LIGHT BALLAST
4183	PCB FLUORESCENT LIGHT BALLAST
4183	PCB FLUORESCENT LIGHT BALLAST
4183	PCB FLUORESCENT LIGHT BALLAST
4183	PCB FLUORESCENT LIGHT BALLAST
4183	PCB FLUORESCENT LIGHT BALLAST
4183	PCB FLUORESCENT LIGHT BALLAST
4185	PAINT SLUDGE WITH LEAD
4199	SOIL CONTAMINATED W/HYDROCARBONS
4209	CADMIUM SLUDGE
4209	CADMIUM SLUDGE
4209	CADMIUM SLUDGE
4209	CADMIUM SLUDGE
4218	TONER POWDER - SOLID
4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT
4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT
4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT
4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT
4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'
4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'
4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'
4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'
4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'
4252	EDM OIL FILTERS
4252	EDM OIL FILTERS
4252	EDM OIL FILTERS
4254	EDM WATER FILTER
4256	RAGS/DEBRIS W/D001 SOLVENT
4256	RAGS/DEBRIS W/D001 SOLVENT
4256	RAGS/DEBRIS W/D001 SOLVENT
4256	RAGS/DEBRIS W/D001 SOLVENT
4257	RAGS/DEBRIS WF002 SOLVENT
4257	RAGS/DEBRIS WF002 SOLVENT

TABLE 3  
WASTE MATERIALS MANAGED  
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ITEM	CHEMICAL CONSTITUENTS
4257	RAGS/DEBRIS WF002 SOLVENT
4257	RAGS/DEBRIS WF002 SOLVENT
4257	RAGS/DEBRIS WF002 SOLVENT
4257	RAGS/DEBRIS WF002 SOLVENT
4258	RAGS/DEBRIS W/ D001,F002 SOLVENT
4258	RAGS/DEBRIS W/ D001,F002 SOLVENT
4258	RAGS/DEBRIS W/ D001,F002 SOLVENT
4259	RAGS/DEBRIS W/ PERCHLOROETHYLENE (PMC 9015)
4259	RAGS/DEBRIS W/ PERCHLOROETHYLENE (PMC 9015)
4264	SPADONE SLUDGE
4267	TRICHLOROETHYLENE FILTERS
4268	OIL RAGS & DEBRIS
4268	OIL RAGS & DEBRIS
4268	OIL RAGS & DEBRIS
4268	OIL RAGS & DEBRIS
4268	OIL RAGS & DEBRIS
4272	IGNITABLE PAINT FILTERS
4273	SOIL CONTAMINATED W/CHLOR. SOLVENT
4277	NICKEL CONTAMINATED FILTERS
4277	NICKEL CONTAMINATED FILTERS
4277	NICKEL CONTAMINATED FILTERS
4281	DEGREASER BOTTOMS (PMC 9015)
4282	DEGREASER BOTTOMS (PMC 9056)
4282	DEGREASER BOTTOMS (PMC 9056)
4282	DEGREASER BOTTOMS (PMC 9056)
4290	CYANIDE CONTAMINATED DEBRIS
4290	CYANIDE CONTAMINATED DEBRIS
4290	CYANIDE CONTAMINATED DEBRIS
4291	SPENT METAL POWDERS
4291	SPENT METAL POWDERS
4292	SPENT CARBON FROM NICKEL BATHS
4293	TRICHLOROETHYLENE - SLUDGE, DEBRIS
4294	WOOD PALLETS - NON HAZ. (NON RCRA SOLIDS)
4295	WAX WITH 1,1,1, TRICHLOROETHANE
4295	WAX WITH 1,1,1, TRICHLOROETHANE
4295	WAX WITH 1,1,1, TRICHLOROETHANE
4306	WASTE CLOTHING (NON RCRA)
4308	PAINT SHOP DEBRIS WITH MEK (PMC 9076)
4311	CARBON ANODES WITH CYANIDE
4316	FILTERS & DEBRIS CONTAM.
4325	MERCURY CONTAMINATED DEBRIS
4325	MERCURY CONTAMINATED DEBRIS
4329	LAB PACKS-FLAMMABLE LIQUID, CORR
4329	LAB PACKS-FLAMMABLE LIQUID, CORR
4330	LAB PACKS - CORROSIVE LIQUID OX.
4332	PCB SM. BURN. CAPACITORS (3LBS OIL)
4332	PCB SM. BURN. CAPACITORS (3LBS OIL)
4332	PCB SM. BURN. CAPACITORS (3LBS OIL)
4333	EP TOXIC FILTERS (CHROMIUM)
4333	EP TOXIC FILTERS (CHROMIUM)

TABLE 3  
WASTE MATERIALS MANAGED  
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ITEM	CHEMICAL CONSTITUENTS
4333	EP TOXIC FILTERS (CHROMIUM)
4334	1,1,1, TRICHLOROETHENE & VASOLINE (PMC 9056)
4335	NON - RCRA ACID BURNABLES (NON RCRA SOLIDS)
4336	NON - RCRA ALKALI BURNABLES
4337	EMPTY DRUMS - < 50 PPM PCB (PCB BURNABLES)
4338	EMPTY DRUMS - < 50 PPM PCB (PCB BURNABLES)
4342	LAB PACK - NON RCRA NON DOT (LAB. CHEMICALS)
4343	LAB PACK - COMPRESSED GAS, FLAMMABLE
4344	BRAZING SALT AND BRICK
4348	LAB PACK - LITHIUM BATTERIES
4348	LAB PACK - LITHIUM BATTERIES
4350	LAB PACK - ORGANIC PEROXIDE (LIQUID)
4351	RAGS & DEBRIS MISC. NON CHLOR. SOLV.
4351	RAGS & DEBRIS MISC. NON CHLOR. SOLV.
4351	RAGS & DEBRIS MISC. NON CHLOR. SOLV.
4352	SCREENED CRUDE SULFUR (NON HAZ SLUDGE)
4353	SAWDUST CONTAMINTED WITH JET FUEL
4355	SOIL CONTAMINATED WITH JET FUEL
4358	PAINT AND CHLOR. SOLVENT MIXTURE
4363	PRE - IMPREGNATED FIBERGLASS CLOTH
4364	LIGHT BALLAST WITH PCB NON REGULATED
4364	LIGHT BALLAST WITH PCB NON REGULATED
4365	CONT. DEBRIS <50 PPM PCB - NON REGULATED
4365	CONT. DEBRIS <50 PPM PCB - NON REGULATED
4369	POLYSULFIDE RUBBER COMPOUND (PWA 416)
4370	CONCRETE / SOIL WITH CYANIDE
4371	EDM FILTERS (D000)
4374	LAB PACK - COMPRESSED GAS NON RCRA
4376	LAB PACKS - FLAMMABLE / CHROME LIQUID
4377	METAL POWDER - (D001)
4380	MASKANT W/
4383	ALKALI SLUDGE WITH C
4385	PAINT SCRAPINGS (F005) (D008)
4386	SOLIDS CONTAMINTED W/ F005
4389	FILTER PAPER WITH LOW MELT ALLOY
4390	LAP PACK WASTE WATER SOLID
4393	CONCRETE W/ CHROME, CYANIDE SOLV.

TABLE 4  
WASTE CONSTITUENTS & RGNS  
PRATT & WHITNEY  
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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS			
B 0001	NITRIC ACID (PMC 1000)	HNO <sub>3</sub> ,water	2			
B 0001	NITRIC ACID (PMC 1000)					
B 0002	CHROMIC ACID (PMC 1001)	CrO <sub>3</sub>	2	24	104	
B 0003	MURIATIC ACID (PMC 1002)					
B 0003	MURIATIC ACID (PMC 1002)	HCl,H <sub>2</sub> O	1			
B 0008	HYDROFLUORIC ACID	HCl	1	15		
B 0014	OXALIC ACID (PMC 1016)	ETHANEDOIC ACID,OXALIC ACID	3			
B 0022	SULFURIC ACID	H <sub>2</sub> SO <sub>4</sub> ,H <sub>2</sub> O	2			
B 0023	ALKALI CLEANER (LIGHT DUTY) (PMC 1252)	NaSilicate	10			
B 0025	ALKALI CLEANER (LIGHT DUTY)(PMC 1255)	NaOH,H <sub>2</sub> O	10	106		
B 0026	ALKALI CLEANER (HEAVY DUTY)	NaOH	10			
B 0035	ALKALINE RUST REMOVER (PMC 1269)	NaOH	10			
B 0038	ALKALI CLEANER (PMC 1272)	Na Tetraborate Pentahydrate	10			
B 0047	ALKALI CLEANER (SPRAY WASHER TYPE)(PMC 1282)	Tetrasodiumpyrophosphate,sodiummetasilicate, Na <sub>2</sub> CO <sub>3</sub> , Polypropylene glycol,H <sub>2</sub> O	10	28	101	106
B 0049	ALKALI CLEANER (GEN. PURP.) (PMC 1284)	none	10			
B 0075	BLACK OXIDE SALTS (FUSED)(PMC 1504)	NaOH,Na <sub>2</sub> NO <sub>3</sub> ,NaNO <sub>2</sub>	10	104		
B 0076	SODIUM CYANIDE (PMC 1505)	NaCN	11			
B 0153	WETTING AGENT (PMC 1610)	none				
B 0199	AMMONIUM HYDROXIDE, CONCENTRATED (PMC 1667)	(not listed)/ NH <sub>4</sub> OH	10	106		
B 0199	AMMONIUM HYDROXIDE, CONCENTRATED (PMC 1667)					
B 0200	AMMONIUM HYDROXIDE, DILUTE (PMC 1668)	NH <sub>4</sub> OH,H <sub>2</sub> O	10	106		
B 0200	AMMONIUM HYDROXIDE, DILUTE (PMC 1668)					
B 0259	IND X-RAY AUTO DEVL P REPLN SOLU. (PMC 1739)	HAc, NaBr,KSO <sub>2</sub> ,Hydroquinone,KOH,H <sub>2</sub> O	10	3	31	106
B 0315	CHEMICAL MILLING MASKANT (PMC 1801)	PCE,Xylene,VM&P Naphtha,flammable	17	101	16	
B 0316	SODIUM HYDROXIDE (LIQUID) (PMC 1803)	NaOH,Na <sub>2</sub> CO <sub>3</sub> ,NaCl,H <sub>2</sub> O	10	106		
B 0316	SODIUM HYDROXIDE (LIQUID)(PMC 1803)					
B 0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)					
B 0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)					
B 0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)	(NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ,NaHSO <sub>3</sub> ,HAc,NaAc	3	105		
B 0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)					
B 0319	SODIUM HYDROXIDE (PMC 1807)	NaOH	10			
B 0319	SODIUM HYDROXIDE (PMC 1807)					
B 0333	X-RAY ACETIC ACID STOP BATH (PMC 1821)	(not listed) HAc	3			

TABLE 4  
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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS			
B 0562	LIQUID POLISHING COMPOUND (PMC 3134)	none				
B 0616	LAYOUT AND IDENTIFICATION DYE (PMC 4039)	Methoxy propanol,1-propanol,2-propanol,xylene,flammable	4	14	101	
B 0617	PURPLE MARK INK-PORUS RUB STMPs (PMC 4040)	none				
B 0619	PURPLE INK SOLVENT (ETH GLY MON ETH) (PMC4042)	Dipropylene Glycol Methyl Ethe, Methoxy Propyl Acetate,flammable	14	5	101	
B 0630	INK, METAL MARKING (PMC 4057)	Diacetone Alcohol,Salicylanilide	4			
B 0688	CEMENT (DECALCOMANIA) (PMC 4158)	Alkyd resin, organic, linseed oil, xylene, VMP naphtha, n-butyl acetate,flammable	16	29	101	
B 0893	SOLVENT, STODDARD (PMC 9001)	Stoddard solvent	101			
B 0893	SOLVENT, STODDARD (PMC 9001)					
B 0893	SOLVENT, STODDARD (PMC 9001)					
B 0893	SOLVENT, STODDARD (PMC 9001)					
B 0894	OIL, MINERAL SEAL (PMC 9002)	Petroleum Hydrocarbons	101			
B 0899	ACETONE (PHENOL FREE) (PMC 9008)					
B 0899	ACETONE (PHENOL FREE) (PMC 9008)	2 propanone,flammable	19	101		
B 0901	PETROLEUM SOLVENT (PMC 9010)					
B 0901	PETROLEUM SOLVENT (PMC 9010)					
B 0901	PETROLEUM SOLVENT (PMC 9010)	Stoddard solvent	16	29	101	
B 0904	KEROSENE (PMC 9021)	kerosene,flammable	101			
B 0905	THINNER, LACQUER (GEN. PURP.)(PMC 9022)					
B 0905	THINNER, LACQUER (GEN. PURP.)(PMC 9022)					
B 0905	THINNER, LACQUER (GEN. PURP.)(PMC 9022)	xylene	101			
B 0919	ELECTRIC MOTOR CLEANER (PMC 9054)	Alkanes,toluene, xylene,ethylbenzene, C8+ aromatics,PCE	101	29	16	17
B 0922	ALKALINE DRAWING COMPOUND REMOVER (PMC 9057)	NaOH	10			
B 0940	METHYL ETHYL KETONE (PMC 9076)					
B 0940	METHYL ETHYL KETONE (PMC 9076)	MEK,flammable	19	101		
B 0940	METHYL ETHYL KETONE (PMC 9076)					
B 0943	ALKALINE RUST STRIPPER (PMC 9081)	NaOH,Na2CO3,Propylene glycol	4	10		
B 0951	METHANOL (PMC 9089)	CH3OH,flammable	4	101		
B 0956	ISOPROPYL ALCOHOL, TECH. GRADE (PMC 9094)	2-Propanol,flammable	4	101		
B 0957	METAL CLEANER (PMC 9095)	H2SO4,Diethylene glycol monobutyl et,Butyl cellusolve,Ammonium silicoflouride	2	107	14	15
B 0963	SFT FM COR % COMP MIL-CL11796 (PMC 9109)	Alkanes,Stoddard Solvent,PCE,zinc naphthinate,dipropylene glycol methyl ethe,	101	17	29	
B 0970	COR PREV COMP FNGRPRNT MIL-C-15074 (PMC 9118)	Stoddard solvent	101			
B 0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)					
B 0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)	mineral oils	101			

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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS				
B 0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)						
B 0985	GRIND. COMP, OIL-TYPE (STAND. DTY)(PMC 9205)	sulferized mineral oil	101				
B 0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)	mineral seal oil					
B 0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)						
B 0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)						
B 0999	HI SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)		101				
B 0999	HI SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)	PHC,chlorinated paraffins	28	29	101	17	
B 1000	LOW SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)						
B 1000	LOW SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)		101				
B 1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)						
B 1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)	PHC,chlorinated paraffins	28	29	101	17	
B 1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)						
B 1022	INHIBITED ETHYLENE GLYCOL (PMC 9380)	ethylene glycol,borax	4				
B 1022	INHIBITED ETHYLENE GLYCOL (PMC 9380)						
B 1030	FLUORESCENT EMULSIFIER (PMC 9408)	not entered					
B 1056	RED DYE (PMC 9505)	not entered					
B 1085	MASKING WAX COMPOUND (PMC 9551)						
B 1085	MASKING WAX COMPOUND (PMC 9551)	aliphatic hydrocarbon wax	101	29			
B 1126	TABLE WAY OIL (PMC 9600)	polysobutylene,sulfur,napthenic distillate	101	28	16		
B 1216	HYDRAULIC OIL (PMC 9805)						
B 1216	HYDRAULIC OIL (PMC 9805)	heavy paraffinic distillates,zinc dialkyl dithiophosphate,barium dinonylnapthalene sul	101	7	16	17	103
B 1216	HYDRAULIC OIL (PMC 9805)						
B 1216	HYDRAULIC OIL (PMC 9805)						
B 1217	LUBRICATING & HYDRAULIC OIL (PMC 9807)	heavy paraffin,alkylated diphenyl amines, ditertiary butyl paracresol,zinc dithiodiamy	101	7			
B 1217	LUBRICATING & HYDRAULIC OIL (PMC 9807)						
B 1218	HYDRAULIC OIL (600 SECOND VISCOSITY)(PMC 9810)	refined base oils	101				
B 1226	HYDRAULIC OIL, 150 SUS (PMC 9826)	zinc dialkyl dithiophosphate,methacrylate copolymer,silcone polymer,zinc,phosphorus	24	32	103		
B 1232	INHIBITED HYDRAULIC OIL (PMC 9834)						
B 1232	INHIBITED HYDRAULIC OIL (PMC 9834)	heavy paraffin,2,6-di-tert-butyl phenol,methacrylate,vinyl acetate	29	31	103		
B 1236	HYD FLUID FIRE RES VISC APPX 45045C (PMC9843)	butylated triphenyl phosphate,triphenyl phosphate	32				
B 1251	AUTOMOTIVE CRANKCASE OIL (SAE 30)(PMC 9859)		101				
B 1253	VACUUM PUMP OIL (PMC 9862)		101				
B 1253	VACUUM PUMP OIL (PMC 9862)	mineral oil					



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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNs
B 1261 OIL, AUTOMOTIVE ENGINE LUB SAE 30 (PMC 9871)	solvent-dewaxed heavy paraffin, additives		101
B 1271 SILICONE LIQUID (PMC 9890)	polydimethylsiloxane		
B 1305 PARTING COMPOUND (PMC 9963)	ethyl alcohol, flammable		4 101
B 1314 DEVELOPER (PMC 4381)	none		
B 1501 ANODIZING SOLUTION (PS 1)	CrO3, H2SO4, water		2 24 104
B 1501 ANODIZING SOLUTION (PS 1)			
B 1502 MURIATIC ACID SOLUTION-20% (PS 3)	HCl, H2O		1
B 1507 NITRIC ACID SOLUTION - 10% (PS 9)	HNO3, H2O		2
B 1509 NITRIC ACID SOLUTION - 50% (PS 11)			
B 1509 NITRIC ACID SOLUTION - 50% (PS 11)			
B 1509 NITRIC ACID SOLUTION - 50% (PS 11)			
B 1509 NITRIC ACID SOLUTION - 50% (PS 11)	HNO3, H2O		2
B 1509 NITRIC ACID SOLUTION - 50% (PS 11)			
B 1509 NITRIC ACID SOLUTION - 50% (PS 11)			
B 1510 PHOSPHORIC ACID SOLUTION - 70% (PS 12)	H3PO4, H2O		1
B 1510 PHOSPHORIC ACID SOLUTION - 70% (PS 12)			
B 1512 NICKEL STRIKE SOLUTION (PS 14)	Nickel Chloride hexahydrate, NiCl2, HCl, H2O		1 24
B 1522 SULFURIC ACID SOLUTION - 40% (PS 25)			
B 1522 SULFURIC ACID SOLUTION - 40% (PS 25)	H2SO4, H2O		2 107
B 1527 INHIBITED ACID SOLUTION - 100% (PS 31)			
B 1527 INHIBITED ACID SOLUTION - 100% (PS 31)	HCl, H2O		1
B 1527 INHIBITED ACID SOLUTION - 100% (PS 31)			
B 1527 INHIBITED ACID SOLUTION - 100% (PS 31)			
B 1531 CHROMATE CONVERSION SOLUTION (PS 36)	Formic acid, H2O		3 24
B 1532 ACID CLNR/WELDABLE AMS4026 AL ALLY (PS 37)	HNO3, Na2SO4, H2O		2 24
B 1533 TITANIUM ETCHING SOLUTION (PS 38)	HNO3, HF, H2O		1 15
B 1540 INHIBITED ACID SOLUTION (PS 47)	HCl, propanol, hexamethylene tetramine, HAc, Amine salts, H2O		1 4 6
B 1541 NITRIC-HYDROFLUORIC SOLUTION (PS 48)			
B 1541 NITRIC-HYDROFLUORIC SOLUTION (PS 48)			
B 1541 NITRIC-HYDROFLUORIC SOLUTION (PS 48)	HNO3, HF, H2O		1 15
B 1542 HYDROFLUORIC-NITRIC ACID SOLU. (PS 49)			
B 1542 HYDROFLUORIC-NITRIC ACID SOLU. (PS 49)	HNO3, HF, H2O, Sodium alkyl sulfate		2 1 15
B 1543 SULFURIC ACID SOLUTION - 10% (PS 50)			

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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS				
B 1543	SULFURIC ACID SOLUTION - 10% (PS 50)	H2SO4,H2O	2	107			
B 1545	CAUSTIC SODA SOLUTION - 3% (PS 52)	KOH,H2O,NaOH	10	106			
B 1545	CAUSTIC SODA SOLUTION - 3% (PS 52)						
B 1546	MURIATIC ACID - 65% (PS 53)						
B 1546	MURIATIC ACID - 65% (PS 53)						
B 1546	MURIATIC ACID - 65% (PS 53)	HCL,H2O	1				
B 1546	MURIATIC ACID - 65% (PS 53)						
B 1547	SULFURIC-HYDROFLUORIC ACID SOLU. (PS 54)	H2SO4,HF,H2O	2	1	15	107	
B 1557	ANODIZE SEAL SOLUTION (PS 66)	HAc,NaBr,H2O,KHSO3,Hydroquinone,KOH	10	31	104	106	4
B 1557	ANODIZE SEAL SOLUTION (PS 66)						
B 1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)	NaOH,Na metasilicate,H2O	10	106			
B 1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)						
B 1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)						
B 1585	ALUMINUM BRAZING SALT BATH (PS 103)	NaF,H2O,AlF3	15	106			
B 1593	PAINT STRIPPING SOLUTION (PS 110)	NaOH,Na metasilicate,H2O	10	106			
B 1594	SILVER-COPPER-PALLADIUM BRAZE ALLOY (PS 112)	Chlorinated hydrocarbons,Ag,Pd,Cu	17	24			
B 1597	CHROMIUM PLATING SOLUTION (PS 115)	CrO3,H2SO4,H2O	2	24	104		
B 1598	CHROMIC ACID SOLUTION (PS 116)	CrO3,H2O	2	24	104		
B 1601	CHROMIUM PLATING SOLUTION (PS 119)	CrO3,H2SO4,H2O	2	24	104		
B 1601	CHROMIUM PLATING SOLUTION (PS 119)						
B 1604	COPPER STRIP SOLU. (NONELECTROLYT)(PS 122)	NaCN,H2O	11	106			
B 1607	NITRIC ACID SOLU. - 20% (AIRPORTS)(PS 126)						
B 1607	NITRIC ACID SOLU. - 20% (AIRPORTS)(PS 126)	HNO3,H2O	2				
B 1607	NITRIC ACID SOLU. - 20% (AIRPORTS)(PS 126)						
B 1612	PAINT STRIPPING SOLUTION (PS 131)	NaOH,H2O,Methyl Phenol	10	31	106		
B 1612	PAINT STRIPPING SOLUTION (PS 131)						
B 1628	ANODIZE SEALING SOLUTION (PS 148)	Na Dichromate,NaCl,Na2SO4,H2O,KOH,NaOH,CrO3	2	10	24	104	
B 1649	ALKALI SMUT REMOVAL SOLUTION (PS 211)	NaOH,NaCN,H2O	10	11	106		
B 1649	ALKALI SMUT REMOVAL SOLUTION (PS 211)						
B 1652	ALKALI CLEAN. (HVY DTY) DRAWING COM (PS 214)	NaOH,H2O	10	106			
B 1653	ALKALI CYANIDE CLEAN. SOLU (HVY DTY)(PS 215)	NaOH,Na metasilicate,NaCN,H2O	10	24	11		
B 1657	DESCALING SOLUTION (PS 222)						
B 1657	DESCALING SOLUTION (PS 222)	HNO3,HF,Ti,H2O	2	1	24	15	

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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNs				
B	1657 DESCALING SOLUTION (PS 222)						
B	1657 DESCALING SOLUTION (PS 222)						
B	1657 DESCALING SOLUTION (PS 222)						
B	1657 DESCALING SOLUTION (PS 222)						
B	1660 11% SODIUM HYDROXIDE SOLUTION (PS 225)						
B	1660 11% SODIUM HYDROXIDE SOLUTION (PS 225)	NaOH,KOH,H2O	10	106			
B	1674 CHEMICAL MILLING SOLUTION (PS 249)	HNO3,HCl,H3PO4,FeCl3,Na Alkyl Sulfate,H2O	1	2			
B	1674 CHEMICAL MILLING SOLUTION (PS 249)						
B	1677 WATER INHIBITOR SOLUTION (PS 253)	H2O,Alkanolamine	7	106			
B	1678 ALKALI CLEANER SOLUTION (PS 254)	Na Tetraborate pentahydrate,H2O	10	106			
B	1689 SULFURIC ACID-SODIUM DICHROMATE SOL (PS 267)	H2SO4,Na2Cr2O7,H2O,NaCl,Na2SO4	2	104	107		
B	1690 ELECTROCHEMICAL MACHINING (PS 269)	HCl,NaNO3,K2Cr2O7,H2O	1	104			
B	1701 ALCOHOL WATER RINSE (PS 279)	Ethanol, CH3OH,Ethyl Ac, HC Solvent,H2O	4	16	24	106	5
B	1703 COLUMBIUM CLEANING SOLUTION (PS 281)	HNO3,HF,H2O	2	15	1		
B	1711 CYANIDE SOLUTION (PS 302)	NaCN,KCN, H2O	11	106			
B	1715 SILVER PLATE SOLUTION (PS 306)	KAgCN,KCN,KCO3,KOH,H2O	11	106	10	24	
B	1718 COPPER PLATING SOLUTION (PS 309)	CuCN,NaCN,NaCO3,KOH,NaOH,NaK tartrate,KOH,H2O	10	11	24	106	
B	1719 COPPER & SILVER STRIP SOLUTION (PS 310)	NaCN,KCN,NaOH,KOH,Na3PO4,H2O	10	11	106		
B	1725 NICKEL STRIP SOLUTION (PS 316)	NaCN,H2O,Na M-nitrobenzenesulfonate	24	106	11		
B	1730 NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)	Ni Sulfamate,NiCl,Boric Acid,sulfamic acid, NaOH,KOH,H2O	1	10	24		
B	1730 NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)						
B	1730 NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)						
B	1740 CORCRALY CTRIPPING SOLUTION (PS 331)						
B	1740 CORCRALY CTRIPPING SOLUTION (PS 331)	HCl,H2O	1				
B	1740 CORCRALY CTRIPPING SOLUTION (PS 331)						
B	1749 ALKALI CLEANER (GEN. PURPOSES)(PS 343)						
B	1749 ALKALI CLEANER (GEN. PURPOSES)(PS 343)	none	10				
B	1749 ALKALI CLEANER (GEN. PURPOSES)(PS 343)						
B	1749 ALKALI CLEANER (GEN. PURPOSES)(PS 343)						
B	1760 COPPER STRIP SOLUTION (PS 481)	CRO3,H2O	2	24	104		
B	1762 CHROMATE CONVERSION SOLUTION IMMERS (PS 486)	HCl,CRO3,Polyethylated detergent,H2O,NaOH,KOH	1	2	24	104	10
B	1764 CHROMIC-PHOSPHORIC ACID ANODIZE SOL (PS 488)						
B	1764 CHROMIC-PHOSPHORIC ACID ANODIZE SOL (PS 488)	CRO3,H3PO4,H2O	1	2	24	104	

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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS				
B 1766	FERRIC CHLORIDE SOLUTION (PS 503)						
B 1766	FERRIC CHLORIDE SOLUTION (PS 503)						
B 1766	FERRIC CHLORIDE SOLUTION (PS 503)	FeCl3, HNO3, HCl, H2O	1	2	24		
B 1766	FERRIC CHLORIDE SOLUTION (PS 503)						
B 1782	CADMIUM STRIP SOLUTION (PS 590)	NH4NO3, H2O	102	24			
B 1787	ANODIZE TOUCH-UP SOLUTION IMMER MET (PS 605)						
B 1787	ANODIZE TOUCH-UP SOLUTION IMMER MET (PS 605)	NaOH, KOH, HNO3, CrO3, BaNO3, H2O	2	10	24	104	106
B 1789	ANODIZE TOUCH-UP SOLU. BRSH/SWAB (PS 607)	CrO3, BaNO3, Polyethylated detergent, H2O	2	24	104		
B 1810	ETCH INSPECTION ACID SAL SOLU. (PS 631)	Na2SO4, NaF, H2O	15	24	24	106	
B 1813	TITANIUM ANODIZING SOLUTION (PS 634)	Na3PO4, H3PO4, NH4OH, H2O	1	10			
B 1814	NITRIC ACID SOLUTION - 70% (PS 635)	HNO3, H2O	2				
B 1815	HYDROCHLORIC ACID SOLUTION - 100% (PS 636)	HCl	1				
B 1818	HYDROPHILIC EMULSIFIER SOLUTION (PS 639)	sodium nitrate	104				
B 1821	NICKEL STRIP SOLUTION (NON CYANIDE)(PS 644)						
B 1821	NICKEL STRIP SOLUTION (NON CYANIDE)(PS 644)						
B 1821	NICKEL STRIP SOLUTION (NON CYANIDE)(PS 644)	Aliphatic amine, NH4Cl, NaNO3	7	104	24		
B 1822	HYDROFLUORIC-NITRIC ACID SOLU. (PS 645)	HF, HNO3, Ti, wetting agent	2	1	15	24	
B 1825	NITRIC-HYDROFLUORIC SOLUTION (PS 648)	HF, HNO3, H2O	2	1	15		
B 1827	INHIBITED ACID SOLUTION - 10% (PS 653)	HCl, H2O	1				
B 2452	LUBRICANT AIRCRAFT TURBINE ENGINE (PWA 521)						
B 2452	LUBRICANT AIRCRAFT TURBINE ENGINE (PWA 521)	tricresol phosphate, oils, ester	101	13	32		
B 2457	ANTI GALLING COMPOUND (PWA 586)	xylene, Pb CO, Mbdisulfide, MEK, ethanol, phenolic resin Pb, flammable	24	19	4	31	33
B 3003	CHLORINATED SOLVENTS (MIXTURE)	PCE, TCE	101	17			
B 3003	CHLORINATED SOLVENTS (MIXTURE)						
B 3003	CHLORINATED SOLVENTS (MIXTURE)						
B 3005	CYANIDE (MIXTURE)						
B 3005	CYANIDE (MIXTURE)	cyanide, F009	11				
B 3006	ZYGLO RINSE	kerosene, H3PO4, Tributyl este					
B 3006	ZYGLO RINSE						
B 3006	ZYGLO RINSE						
B 3006	ZYGLO RINSE	methyl chloroform, PCE, Ca(CO3), SiO2, TiO2, Zn Stearate	17	19	24		
B 3007	SOLUBLE OIL						
B 3007	SOLUBLE OIL						

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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS					
B 3007 SOLUBLE OIL								
B 3007 SOLUBLE OIL								
B 3007 SOLUBLE OIL		soluble oil	101					
B 3007 SOLUBLE OIL								
B 3008 CONCENTRATED ZYGLO (MIXTURE)		methyl chloroform, PCE, Ca(CO3)2, SiO2, TiO2, Zn Stearate	17	19	24			101
B 3008 CONCENTRATED ZYGLO (MIXTURE)								
B 3008 CONCENTRATED ZYGLO (MIXTURE)								
B 3010 HIGH FLASH SOLVENTS (MIXTURE)		Chlorinated Solvent, F002	17					
B 3011 LOW FLASH SOLVENTS (MIXTURE)								
B 3011 LOW FLASH SOLVENTS (MIXTURE)			101	17	16	14	19	4
B 3011 LOW FLASH SOLVENTS (MIXTURE)								
B 3011 LOW FLASH SOLVENTS (MIXTURE)								
B 3011 LOW FLASH SOLVENTS (MIXTURE)		Xylene, Halogenated Solvents, Flammable, D001, F003, F005	17	101	16			
B 3013 PCB CONTAMINATED BURNABLE LIQUID								
B 3013 PCB CONTAMINATED BURNABLE LIQUID								
B 3013 PCB CONTAMINATED BURNABLE LIQUID								
B 3013 PCB CONTAMINATED BURNABLE LIQUID								
B 3013 PCB CONTAMINATED BURNABLE LIQUID		PCBs, flammable	101	17				
B 3027 MIXED ACIDS								
B 3027 MIXED ACIDS								
B 3027 MIXED ACIDS								
B 3027 MIXED ACIDS								
B 3027 MIXED ACIDS								
B 3027 MIXED ACIDS		Waste Acid Liquid, D002	1	3				
B 3028 MIXED ALKALIES								
B 3028 MIXED ALKALIES		D002	10					
B 3028 MIXED ALKALIES								
B 3030 MIXED CHROME								
B 3030 MIXED CHROME								
B 3030 MIXED CHROME								
B 3030 MIXED CHROME		D007, Cr, hazardous liquid	24					
B 3030 MIXED CHROME								
B 3032 DILUTED WASTE WATER								

TABLE 4  
WASTE CONSTITUENTS & RGNs  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNs			
B 3032	DILUTED WASTE WATER					
B 3032	DILUTED WASTE WATER					
B 3032	DILUTED WASTE WATER	no information	106	24		
B 3032	DILUTED WASTE WATER					
B 3032	DILUTED WASTE WATER					
B 3032	DILUTED WASTE WATER					
B 3033	COLT STREET OIL	Halogenated Solvents, combustible, F002	17	101		
B 3033	COLT STREET OIL					
B 3034	HIGH & LOW FLASH SOLVENT MIXTURES					
B 3034	HIGH & LOW FLASH SOLVENT MIXTURES					
B 3034	HIGH & LOW FLASH SOLVENT MIXTURES	Ignitable, xylene, Halogenated/Chlorinated Solvents	17	101	16	
B 3037	MINERAL OIL FROM DEWAXING	Combustible	101			
B 3040	MIXTURE OF HYDRAULIC, LUB, CUTTING OIL	Ignitable, waste oil, D001	101			
B 3040	MIXTURE OF HYDRAULIC, LUB, CUTTING OIL					
B 3058	DEOXIDIZER SOLUTION (PS 174)	flammable, HNO3, K2Cr2O7, D002	2	101	104	24
B 3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)					
B 3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)					
B 3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)	NaOH, Na Silicate, D002	10			
B 3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)					
B 3065	ALKALI CLEANER (LOW TEMP.) (PS 350)	none	10			
B 3067	SULFURIC ACID & MURIATIC ACID (PS 352)	HCl, H2O, H2SO4	1	2	107	
B 3068	PHOSPHORIC ACID INHIBITOR (PS 21)	HCl, Ethanol, Methanol, Ethyl Acetate, Hydrocarbon Solvent, Methyl Isobutyl Ketone, flammabl	1	4	13	19
B 3070	SODIUM BISULFATE & WATER (SPMC-14)		106			
B 3091	#6 FUEL OIL & WATER	Fuel oil, flammable	101			
B 3091	#6 FUEL OIL & WATER					
B 3091	#6 FUEL OIL & WATER					
B 3097	HYDROGEN PEROXIDE SOLUTION (SPS 82)	Hydrogen peroxide	104			
B 3099	CUTTING POLYMER-MALCO 2175 (PMC 9331)	Ethyloxilated octylphenol, paraffinetic/Napthenic solution	31	29	16	
B 4048	OIL WITH CHLORINATED SOLVENTS					
B 4048	OIL WITH CHLORINATED SOLVENTS					
B 4048	OIL WITH CHLORINATED SOLVENTS					
B 4048	OIL WITH CHLORINATED SOLVENTS					
B 4048	OIL WITH CHLORINATED SOLVENTS					

TABLE 4  
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PRATT & WHITNEY  
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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNs		
B 4048	OIL WITH CHLORINATED SOLVENTS	Combustable,Non-Cl Solvent,F002	101	17	16
B 4049	B3 OIL WITH HALOGENATED SOLVENTS	F001,F002,Chlorinated oil,flammable	17	101	
B 4049	B3 OIL WITH HALOGENATED SOLVENTS				
B 4050	B2 OIL W/1000 PPM TOTAL HALOGEN				
B 4050	B2 OIL W/1000 PPM TOTAL HALOGEN	F002,F001,Chlorinated oils	17		
B 4050	B2 OIL W/1000 PPM TOTAL HALOGEN				
B 4050	B2 OIL W/1000 PPM TOTAL HALOGEN				
B 4050	B2 OIL W/1000 PPM TOTAL HALOGEN				
B 4051	B1 OIL	fuel oil	101		
B 4051	B1 OIL				
B 4051	B1 OIL				
B 4051	B1 OIL				
B 4051	B1 OIL				
B 4051	B1 OIL				
B 4057	HIGH FLASH OIL (PMC 9252, 9015)	Napthenic petroleum distillate,Process oil,THC,PHC,tert butylglycidyl ether	17	101	16
B 4059	CHLORINATED SOLVENT (PMC 9356)				
B 4059	CHLORINATED SOLVENT (PMC 9356)	F001,F002,Chlorinated solvent	17		
B 4061	ALKALI CLEANER (PS 362)	Disodium phosphate,tetra sodium pyrophosphate	10		
B 4063	ELECTROLESS NICKEL PLATING SOLU. (PS 359)	Nickel sulfate,H2O,Sodium hypophosphate,NaOH	10	24	106
B 4085	SOLVENT (PMC 9828)	no hazardous ingredients, flash point 495 C	101		
B 4100	PETROLEUM SOLVENT	D001,Ignitable,Non-Cl solvent	101		
B 4111	BETZ ENTEC 312	D002,Corrosive,alkalies	10		
B 4127	MIXED WASTE ACID	D002,Corrosive acid	1	3	
B 4127	MIXED WASTE ACID				
B 4128	POTASSIUM HYDROXIDE				
B 4128	POTASSIUM HYDROXIDE	D002, KOH	10		
B 4131	1,1,1 TRICLOR & WATER				
B 4131	1,1,1 TRICLOR & WATER	F001,Chlorinated solvent,water	17	106	
B 4131	1,1,1 TRICLOR & WATER				
B 4131	1,1,1 TRICLOR & WATER				
B 4139	SODIUM HYDROXIDE SOLUTION	D002,NaOH,Alkalies	10		
B 4139	SODIUM HYDROXIDE SOLUTION				

TABLE 4  
WASTE CONSTITUENTS & RGNS  
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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS				
B 4148	CORROSION INHIBITOR (OIL BASED)(PMC 9332)	Alkanolamine	7				
B 4168	POLYOXALKYLATED GLYCOL PART B (PMC 4118)	none	101				
B 4174	PERCHLOROETHYLENE AND WATER						
B 4174	PERCHLOROETHYLENE AND WATER	F001,PCE,H2O	17	106			
B 4176	BERYLLIUM COMPOUND	P015,Beryllium dust	24				
B 4186	ETHYLENE GLYCOL (NOW RCRA LIQUIDS)						
B 4186	ETHYLENE GLYCOL (NOW RCRA LIQUIDS)						
B 4186	ETHYLENE GLYCOL (NOW RCRA LIQUIDS)	Ethylene glycol	4				
B 4190	HYDROGEN PEROXIDE (SPS 96)	D001,acids	101	30			
B 4192	GASOLINE	D001,flammable	101				
B 4194	PENETRANT (PMC 4350)	phthalate ester,petroleum distillate,butyl diglycol,kerosene	101	13	4		
B 4194	PENETRANT (PMC 4350)						
B 4194	PENETRANT (PMC 4350)						
B 4195	ALKALINE PHOTOGRAPHIC DEVELOPER	D002,Hydroquinone,caustic soda	10	31			
B 4195	ALKALINE PHOTOGRAPHIC DEVELOPER						
B 4196	ACID PHOTOGRAPHIC CHEMICAL						
B 4196	ACID PHOTOGRAPHIC CHEMICAL	D002,acids	3				
B 4197	ACID PHOTOGRAPHIC FIXER	D011,D002,Ag,Acids	24				
B 4198	ALKALINE PHOTOGRAPHIC CHEMICAL						
B 4198	ALKALINE PHOTOGRAPHIC CHEMICAL	D002,Alkalies	10				
B 4205	FLUORESCENT PENETRANT (HI SENS.)(PMC 4353)	petroleum distillate,Bis 2ethyl hexyl phthalate,Kerosene,CO2	101				
B 4208	ZYGLO (PMC 4354)	Aromatic hydrocarbons,phosphate ester,Polypropylene glycol,Fluoranthene,kerosene,CO2	4	13	101	16	17
B 4216	PROPYLENE GLYCOL (PMC 1867)						
B 4216	PROPYLENE GLYCOL (PMC 1867)	polyvinyl alcohol	4				
B 4217	PETROLEUM DISTILLATE	Non-Cl solvent	101				
B 4221	SUPER AGITENE-CLEANING COMPOUND	D001,Combustable,Paraffin napthenes ,dipropylene glycol	101				
B 4223	OIL TO4225 (TRAIL ORDER) (4225)	NPG Diesters,TMP fatty diesters,Polymeric quinoline,Styrene copolymer	13	103			
B 4235	ELECT> DISCHARGE MACH EDM FLUID (PCM9239)	Petroleum distillate,Mineral spirits	101				
B 4236	HI SPEED CUTTING OIL, HVY DTY (PMC 9252)	Napthenic petroleum distillate,process oil	101	16			
B 4237	LOW SPEED CUTTING OIL, HVY DTY (PMC 9253)	Hydrotreated oil, chlorinated pariffins	101	17			
B 4239	METAL CUTTING COMPOUND, OIL TYPE (PMC 9214)	oils	101				
B 4242	SPINDLE LUBRICATING OIL (PMC 9801)	mineral oils,lubricating oils	101				
B 4243	COMPOUNDED HYDRAULIC OIL (PMC 9814)	mineral oils,pariffinic distillate,Zinc dialkyl dithiophosphate,barium polyolefen phos	101				



TABLE 4  
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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS
B 4248	ETCHING SOLUTION (HMI) 5X $\text{HNO}_3$	D002, $\text{HNO}_3$	1 24
B 4250	ALKALINE ULTRASONIC CLEANER (SPMC - 7)	D002, $\text{NaOH}$	10
B 4251	CITRIKLEEN AND WATER (PMC 9090)	Diethylene glycol monobutylether, ethanolamine,flammable	101 7 14
B 4255	W WATER W/CL HYDROCARBON-NON-HAZ	non-RCRA liquids	17 106
B 4255	W WATER W/CL HYDROCARBON-NON-HAZ		
B 4255	W WATER W/CL HYDROCARBON-NON-HAZ		
B 4269	JET FUEL WITH CHLORINATED SOLVENTS		
B 4269	JET FUEL WITH CHLORINATED SOLVENTS	D001,F002,Flammable,Jet fuel	101 16 17
B 4270	DILUTE OILY WASTE WATER		
B 4270	DILUTE OILY WASTE WATER	no data	101 106
B 4270	DILUTE OILY WASTE WATER		
B 4270	DILUTE OILY WASTE WATER		
B 4271	WATER W/OIL, TH . 1000 PPM	F002,Chlorinated solvent	17
B 4271	WATER W/OIL, TH . 1000 PPM		
B 4275	ELECTROLESS NICKEL SOLUTION	D002,Corrosive acid	24
B 4276	WASTE WATER - ALKALI CLEANING TANK		
B 4276	WASTE WATER - ALKALI CLEANING TANK	no data	10 106
B 4284	JET FUEL & WATER	combustible fuel	101 106
B 4284	JET FUEL & WATER		
B 4284	JET FUEL & WATER		
B 4288	MACHINING FLUID	oils	101
B 4288	MACHINING FLUID		
B 4289	TO 5527	oils	101
B 4289	TO 5527		
B 4296	WATER SOLUBLE GLUE - RH (NON RCRA LIQUIDS)	no data	
B 4305	ZINC ACETATE SOLUTION ACID TEST (NON RCRA)	non RCRA liquids	24
B 4307	CAUSTIC SODA SOLUTION (PS 292)	$\text{NaOH}$ , $\text{Na}_2\text{CO}_3$ , $\text{NaCl}$ ,Phosphoric acid	1 10
B 4313	ALKALI SOLUTION WITH CHROME		
B 4313	ALKALI SOLUTION WITH CHROME	D002,D007, $\text{NaOH}$ ,Chromium	10 24
B 4313	ALKALI SOLUTION WITH CHROME		
B 4315	PAINT THINNER (NON SPECIFIED)	D001,F005,Toluene,flammable	16 101
B 4320	BIOPEN PENETRANT & WATER	Waste water	106
B 4345	BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)	PCB liquids	17

TABLE 4  
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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS		
B	4345 BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)				
B	4345 BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)				
B	4345 BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)				
B	4346 DILUTE WATER - BULK FUEL TANKS	dilute waste water	106	101	
B	4347 FLAMMABLE SOLVENT				
B	4347 FLAMMABLE SOLVENT	D001,Petroleum solvents, paints flammable	101		
B	4349 ALKALINE CLEANER FOR OIL (PMC 1411, 9271)	Potassium silicate	10		
B	4354 ALKALINE DEGREASING	D002,Sodium metasilicate	10		
B	4360 1,1,1,TRICH & WAX - RECLAIM (PMC 9056)	F001,TCE,Diethylene dioxide,glycomethylene ether,SEC butanol	4	14	17
B	4368 BBX SOLUTION & OIL (NON RCRA LIQUIDS)	non RCRA liquids,oils	101		
B	4372 NICKEL BRAZE STRIP	D002,Ethylene,Diamine	8	28	
B	4373 BLEND TANK WASTE - MIXTURE				
B	4373 BLEND TANK WASTE - MIXTURE	D001,F001,F003,F005,flammable	101	16	17
B	4379 COLT STREET SKINNER TANK	D001,F001,F003,F005,flammable liquid	101	16	17
B	4379 COLT STREET SKINNER TANK				
B	4382 ALKALINE CLEANER - TURCO 5948	2-butoxyethanol,glycerinenonylphenopypoly(ethyleneoxy),H2O	106	4	
B	4384 JET FUEL W <50 PPM PCB	PCBs,flammable fuel	101	17	
B	4387 ECM SOLV. NON RCRA (PS 251)	NaCl,HCl,H2O,KOH,NaOH,Ferrous Chloride	1	10	
BC	0081 SODIUM CARBONATE (PMC 1510)	Na2CO3	10		
BC	0084 SILVER PLATE BRIGHTENER (PMC 1513)	HAc, NaHSO3, Ammonium thiosulfate, Boric Acid	3	1	105
BC	0144 CAUSTIC SODA (PMC 1601)	KOH,NaOH,H2O	10	106	
BC	0144 CAUSTIC SODA (PMC 1601)				
BC	0149 POTASSIUM HYDROXIDE (PMC 1606)	KOH	10		
BC	0890 POTASSIUM HYDROXIDE (PMC 7029)				
BC	0890 POTASSIUM HYDROXIDE (PMC 7029)				
BC	0890 POTASSIUM HYDROXIDE (PMC 7029)	KOH,H2O	10	106	
BC	4116 EPOXY PRIMER (PWA 568,569, PMC 9076)	Methyl ethyl ketone,toluene 2-heptanone,flammable	16	19	101
BC	4116 EPOXY PRIMER (PWA 568,569, PMC 9076)				
BC	4116 EPOXY PRIMER (PWA 568,569, PMC 9076)				
BC	4212 ORGANIC PEROXIDE (PMC 1620)	D003,Organic peroxide	104		
BC	4283 STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)				
BC	4283 STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)				
BC	4283 STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)				

TABLE 4  
WASTE CONSTITUENTS & RGNs  
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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNs					
BC 4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)	TCE,1,4 diethylene dioxide glycol methylene ether	14	17				
BC 4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)							
BC 4321	1,1,1, TRICHLOR & WATER (PH,2)(PMC 9056)	TCE,1,4 diethylene dioxide,glycolmethylene ether,SEC butanol,HCL	4	14	17	1		
C 0088	ROCHELLE SALT (PMC 1518)	NaK tartrate KNaC4H4O6*4H2O	10					
C 0119	SULFAMIC ACID (PMC 1550)	Sulfamic Acid	1					
C 0127	SODIUM NITRITE (PMC 1558)	NaNO2	104					
C 0129	SODIUM NITRATE (PMC 1560)	Na2NO3	104					
C 0130	SODIUM CITRATE (PMC 1561)	NA Citrate, Na3C6H5O7*2H2O	3					
C 0133	SALT/DESCALING TITANIUM/TI ALLOY PT (PMC 1566)	KOH,K2NO3,K2CO3,NaOH,Ti,Pt	10	104	22	23	24	102
C 0167	CHROMATE CONVERSION SALTS-ALUMINUM (PMC 1631)	CrO3, BaNO3	2	24	104			
C 0220	CHROMATE CONVERSION SALTS-MAGNESIUM (PMC 1690)	CrO3	2	24	104			
C 0249	EPOXY RESIN (PMC 1727)	Phenyl Glycidyl ether,Epichlorohydrin	14	17	34	106		
C 0269	SCREENED CRUDE SULFUR (PMC 1753)	Sulfur	101					
C 0335	GLASS CERAMIC PRECOAT (GREEN)(PMC 1823)	TCA,Pb borosilicate frit	17	22				
C 0336	GLASS CERAMIC PRECOAT (YELLOW)(PMC 1824)	TCA,Silica,PbO,Xylene, Dimethoxymethane	17	24	16	22	101	
C 0573	POWDER-CONFINED ABRASIVE FINISH. (PMC 3144)	Non RCRA Solid						
C 0684	COMP, PROTEC, STRIP, PLASTIC (PMC 4153)	Ethyl Cellulose, Mineral Oil, Waxes, Plasticizers	101					
C 0895	TRICHLOROETHYLENE (LOW RESIDUE)(PMC 9003)	CH3OH,TCE, 1,2 butylene oxide,	17	4	28			
C 0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)	PCE,TCE, Tert Butylglycidyl ether	17	34				
C 0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)							
C 0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)							
C 0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)							
C 0914	SPRAY TYPE CLEANER, BUFFERED ALKALI (PMC9046)	Diethylene triamine, Na fluorosilicate	7					
C 0921	1,1,1-TRICHLOROETHANE (RECLAIM.)(PMC 9056)	TCA,1,4 Diethylene dioxide, glycol methylene ether, butanol	17	4	14	28		
C 0921	1,1,1-TRICHLOROETHANE (RECLAIM.)(PMC 9056)							
C 0921	1,1,1-TRICHLOROETHANE (RECLAIM.)(PMC 9056)							
C 0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)							
C 0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)							
C 0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)							
C 0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)	TCTFE	17					
C 0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)							
C 0950	PERCHLORETHYLENE, VAPOR DEGREASER (PMC 9088)	TCE,Tert butylglycidyl ether,PCE	17	14				
C 1130	WHITE PETROLATUM (PMC 9609)	Refined Petroleum	101					

TABLE 4  
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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS
C	1210 BRAZING ALLOY (GREEN STOP) (PMC 9757)	inert material, water	106
C	2093 COATING, DIFFUSED ALUMINIDE (PS 273)	HCl, H <sub>2</sub> SO <sub>4</sub>	1 2
C	2151 SILICONE RUBBER COMPOUND (PWA 403)	Fluorinated/Siliconated Rubber Gum	15 101
C	2160 ADHESIVE/SEALANT (PWA 416)		
C	2160 ADHESIVE/SEALANT (PWA 416)	toluene, MEK	16 19
C	2162 LIQUID EPOXY RESIN (PWA 421)		
C	2162 LIQUID EPOXY RESIN (PWA 421)	Butyl Glycidyl ether, bisphenol a/epichlorohydrin re	14
C	2233 COMPOUND, ANTI GALLING (PWA 550)	Mb Disulfide, Antimony trioxide, toluene, xylene, flammable	16 24 101 33
C	2465 INDUSTRIAL WASTE FILTER CAKE (PWA 275)		
C	2465 INDUSTRIAL WASTE FILTER CAKE (PWA 275)	Ammonium bifluoride	15
C	2465 INDUSTRIAL WASTE FILTER CAKE (PWA 275)		
C	2465 INDUSTRIAL WASTE FILTER CAKE (PWA 275)		
C	2465 INDUSTRIAL WASTE FILTER CAKE (PWA 275)		
C	2467 ALUMINUM COATING (PWA 595)	Al, Cr, phosphates, H <sub>2</sub> O	24 106
C	2470 ABLATIVE COATING COMPOUND (PWA 36752)	Heptane, MEK, MIBK, C <sub>6</sub> H <sub>6</sub> , C <sub>7</sub> H <sub>8</sub>	19 29 16 101
C	3001 WAX/PERCHLOR (RECLAIMABLE)	PCE	17 101
C	3002 WAX/PERCHLOR (DISPOSAL)		
C	3002 WAX/PERCHLOR (DISPOSAL)		
C	3002 WAX/PERCHLOR (DISPOSAL)		
C	3002 WAX/PERCHLOR (DISPOSAL)	PCE	17 101
C	3004 PAINTS AND PAINT SOLVENTS (MIXTURE)		
C	3004 PAINTS AND PAINT SOLVENTS (MIXTURE)		
C	3004 PAINTS AND PAINT SOLVENTS (MIXTURE)		
C	3004 PAINTS AND PAINT SOLVENTS (MIXTURE)		
C	3004 PAINTS AND PAINT SOLVENTS (MIXTURE)		
C	3004 PAINTS AND PAINT SOLVENTS (MIXTURE)	flammable, D001	101
C	3004 PAINTS AND PAINT SOLVENTS (MIXTURE)		
C	3004 PAINTS AND PAINT SOLVENTS (MIXTURE)		
C	3014 PCB CONTAMINATED NON-BURNABLES		
C	3014 PCB CONTAMINATED NON-BURNABLES		
C	3014 PCB CONTAMINATED NON-BURNABLES		
C	3014 PCB CONTAMINATED NON-BURNABLES	PCBs	17
C	3016 KOLENE SALTS		

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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNs	
C 3016 KOLENE SALTS				
C 3016 KOLENE SALTS		NaOH, KOH, Na2NO3, Kpermanganate, Na2CO3, NaCl	10	104
C 3016 KOLENE SALTS				
C 3017 ACID FILTERS		Acid sludge, D002	1	3
C 3018 CYANIDE FILTERS		CN, F008	11	
C 3018 CYANIDE FILTERS				
C 3019 OIL FILTERS				
C 3019 OIL FILTERS		Spent Oil Sludge	101	
C 3020 ACID SLUDGE				
C 3020 ACID SLUDGE				
C 3020 ACID SLUDGE				
C 3020 ACID SLUDGE		D002	1	3
C 3021 ALKALI SLUDGE				
C 3021 ALKALI SLUDGE				
C 3021 ALKALI SLUDGE				
C 3021 ALKALI SLUDGE				
C 3021 ALKALI SLUDGE				
C 3021 ALKALI SLUDGE		D002	10	
C 3022 CHROME SLUDGE		Cr, D007	11	24
C 3022 CHROME SLUDGE				
C 3022 CHROME SLUDGE				
C 3023 CYANIDE SLUDGE				
C 3023 CYANIDE SLUDGE				
C 3023 CYANIDE SLUDGE		NaCN, KCN, F008	11	24
C 3024 OIL SLUDGE		Oil sludge	101	
C 3024 OIL SLUDGE				
C 3024 OIL SLUDGE				
C 3024 OIL SLUDGE				
C 3024 OIL SLUDGE				
C 3025 CARBON SLUDGE		Non RCRA Solid	101	
C 3041 ECM FILTER CAKE				
C 3041 ECM FILTER CAKE		non-regulated sludge	10	24
C 3042 WASTE JET FUEL		flammable liquid	101	

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ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNs
C 3042	WASTE JET FUEL		
C 3042	WASTE JET FUEL		
C 3043	OILS/SOLVENTS MIXTURES		
C 3043	OILS/SOLVENTS MIXTURES		
C 3043	OILS/SOLVENTS MIXTURES	Halogenated/chlorinated solvents, F002, combustible	17 101
C 3043	OILS/SOLVENTS MIXTURES		
C 3043	OILS/SOLVENTS MIXTURES		
C 3043	OILS/SOLVENTS MIXTURES		
C 3043	OILS/SOLVENTS MIXTURES		
C 3044	PCB BURNABLE SOLIDS	PCBs, flammable	101 17
C 3044	PCB BURNABLE SOLIDS		
C 3044	PCB BURNABLE SOLIDS		
C 3044	PCB BURNABLE SOLIDS		
C 3044	PCB BURNABLE SOLIDS		
C 3046	PAINT SLUDGE		
C 3046	PAINT SLUDGE		
C 3046	PAINT SLUDGE		
C 3046	PAINT SLUDGE	flammable solid, D001	101
C 3046	PAINT SLUDGE		
C 3046	PAINT SLUDGE		
C 3046	PAINT SLUDGE		
C 3047	NON-RCRA SOLIDS		
C 3047	NON-RCRA SOLIDS	no information	24 10
C 3071	PCB'S TRANSFORMERS	PCB	17
C 3071	PCB'S TRANSFORMERS		
C 3083	PCB BURNABLE CAPACITORS (>3#'S OIL)	Flammable, PCBs	101 17
C 3083	PCB BURNABLE CAPACITORS (>3#'S OIL)		
C 3083	PCB BURNABLE CAPACITORS (>3#'S OIL)		
C 3085	MAT'L'S W/RADIOACTIVE THORIUM	Radioactive	24
C 4013	POWDER, PLASMA SPRAY, NICKEL-LOY (PWA 1317)	Ni, Cr	22
C 4018	POWDER, PLASMA SPRAY (PWA 1322)	Cobalt, Tungsten, C, Al, Ni, Si,	22
C 4053	JET A FUEL FILTERS		
C 4053	JET A FUEL FILTERS		

TABLE 4  
WASTE CONSTITUENTS & RGNS  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS
C 4053	JET A FUEL FILTERS	D001,Ignitable sludge	101
C 4054	RAGS CONTAMINTAED WITH JET FUEL		
C 4054	RAGS CONTAMINTAED WITH JET FUEL		
C 4054	RAGS CONTAMINTAED WITH JET FUEL		
C 4054	RAGS CONTAMINTAED WITH JET FUEL	D001,Ignitable sludge	101
C 4055	DEBRIS CONT W/9252 & 9015 (PMC 9252,9015)		17 101 16 14
C 4056	TRAP ROCK WITH FUEL OIL	Demolition debris	101
C 4112	METAL HYDROXIDE SLUDGE	Hydroxide sludge,F006	10 24
C 4123	CADMIUM	D006,Toxic solid cadmium	24
C 4134	LAB PACKS - COMBUSTIBLES		
C 4134	LAB PACKS - COMBUSTIBLES	D001,Ignitable	101
C 4134	LAB PACKS - COMBUSTIBLES		
C 4135	LAB PACKS - FLAMMABLE		
C 4135	LAB PACKS - FLAMMABLE		
C 4135	LAB PACKS - FLAMMABLE	D001,Ignitable lab chemicals	101
C 4135	LAB PACKS - FLAMMABLE		
C 4135	LAB PACKS - FLAMMABLE		
C 4136	LAB PACKS - OXIDIZERS		
C 4136	LAB PACKS - OXIDIZERS	D003,D001,Ignitable lab chemical	101 104
C 4136	LAB PACKS - OXIDIZERS		
C 4140	NICKEL CADMIUM BATTERIES	D006,Toxic solids	24
C 4141	MERCURY (ST. MANIFEST FOR RECLAIM)		
C 4141	MERCURY (ST. MANIFEST FOR RECLAIM)	U151,D009,Mercury	24
C 4145	SERMETEL CONTAMINATED FILTERS		
C 4145	SERMETEL CONTAMINATED FILTERS	D007,Chromium	24
C 4159	LAB PACKS - ORM-A SOLIDS	Lab chemicals	
C 4161	LAB PACKS - HW LIQUID OR SOLID		
C 4161	LAB PACKS - HW LIQUID OR SOLID		
C 4161	LAB PACKS - HW LIQUID OR SOLID	Lab chemicals	
C 4162	LAB PACKS - CORROSIVE SOLIDS	D002,lab chemicals	10
C 4162	LAB PACKS - CORROSIVE SOLIDS		
C 4163	LAB PACKS - CORROSIVE LIQUIDS		
C 4163	LAB PACKS - CORROSIVE LIQUIDS	D002,lab chemicals	10

TABLE 4  
WASTE CONSTITUENTS & RGNs  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNs			
C	4163 LAB PACKS - CORROSIVE LIQUIDS					
C	4163 LAB PACKS - CORROSIVE LIQUIDS					
C	4163 LAB PACKS - CORROSIVE LIQUIDS					
C	4164 LAB PACKS - POISON B LIQUIDS					
C	4164 LAB PACKS - POISON B LIQUIDS					
C	4164 LAB PACKS - POISON B LIQUIDS	lab chemicals				
C	4165 LAB PACKS - POISON SOLIDS	lab chemicals				
C	4165 LAB PACKS - POISON SOLIDS					
C	4166 LAB PACKS - FLAMMABLE SOLIDS					
C	4166 LAB PACKS - FLAMMABLE SOLIDS					
C	4166 LAB PACKS - FLAMMABLE SOLIDS					
C	4166 LAB PACKS - FLAMMABLE SOLIDS	D001,lab chemical,ignitable			101	
C	4171 CHROME CONTAMINATED SOLID WASTE					
C	4171 CHROME CONTAMINATED SOLID WASTE					
C	4171 CHROME CONTAMINATED SOLID WASTE				24	
C	4171 CHROME CONTAMINATED SOLID WASTE	D007, Chromium,toxic solids				
C	4178 RAGS/DEBRIS WITH MEK OR TOLUENE					
C	4178 RAGS/DEBRIS WITH MEK OR TOLUENE					
C	4178 RAGS/DEBRIS WITH MEK OR TOLUENE	F005,Ignitable sludge,Toluene,MEK			16	19 101 4
C	4178 RAGS/DEBRIS WITH MEK OR TOLUENE					
C	4178 RAGS/DEBRIS WITH MEK OR TOLUENE					
C	4178 RAGS/DEBRIS WITH MEK OR TOLUENE					
C	4183 PCB FLUORESCENT LIGHT BALLAST					
C	4183 PCB FLUORESCENT LIGHT BALLAST					
C	4183 PCB FLUORESCENT LIGHT BALLAST					
C	4183 PCB FLUORESCENT LIGHT BALLAST					
C	4183 PCB FLUORESCENT LIGHT BALLAST					
C	4183 PCB FLUORESCENT LIGHT BALLAST	PCBs,flammable			101	17
C	4183 PCB FLUORESCENT LIGHT BALLAST					
C	4183 PCB FLUORESCENT LIGHT BALLAST					
C	4185 PAINT SLUDGE WITH LEAD	D008,D001,ignitable,Pb			101	24
C	4199 SOIL CONTAMINATED W/HYDROCARBONS	demolition debris			17	24
C	4209 CADMIUM SLUDGE					



TABLE 4  
WASTE CONSTITUENTS & RGNs  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNs			
C 4209	CADMIUM SLUDGE					
C 4209	CADMIUM SLUDGE					
C 4209	CADMIUM SLUDGE	D006,cadmium toxic solid	24			
C 4218	TOWER POWDER - SOLID	D001,ignitable sludge	101			
C 4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT	F002,F001,PHC,THC	17	16		
C 4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT					
C 4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT					
C 4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT					
C 4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'					
C 4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'					
C 4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'					
C 4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'					
C 4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'	TCE,1,4 diethylene dioxide,glycol methylene ether, SEC butanol,F002	4	14	17	16
C 4252	EDM OIL FILTERS					
C 4252	EDM OIL FILTERS	D006,cadmium toxic solids	23	24		
C 4252	EDM OIL FILTERS					
C 4254	EDM WATER FILTER	D002,Cadmium	23	24		
C 4256	RAGS/DEBRIS W/D001 SOLVENT					
C 4256	RAGS/DEBRIS W/D001 SOLVENT					
C 4256	RAGS/DEBRIS W/D001 SOLVENT	D001,flammable,ignitable sludge	101			
C 4256	RAGS/DEBRIS W/D001 SOLVENT					
C 4257	RAGS/DEBRIS WF002 SOLVENT					
C 4257	RAGS/DEBRIS WF002 SOLVENT					
C 4257	RAGS/DEBRIS WF002 SOLVENT					
C 4257	RAGS/DEBRIS WF002 SOLVENT					
C 4257	RAGS/DEBRIS WF002 SOLVENT	F002,Chlorinated solvents	17			
C 4257	RAGS/DEBRIS WF002 SOLVENT					
C 4258	RAGS/DEBRIS W/ D001,F002 SOLVENT	D001,F002,flammable solids,Chlorinated solids	17	101		
C 4258	RAGS/DEBRIS W/ D001,F002 SOLVENT					
C 4258	RAGS/DEBRIS W/ D001,F002 SOLVENT					
C 4259	RAGS/DEBRIS W/ PERCHLOROETHYLENE (PMC 9015)	TCE,PCE,Tert Butylglycidyl ether,F005	14	17		
C 4259	RAGS/DEBRIS W/ PERCHLOROETHYLENE (PMC 9015)					
C 4264	SPADONE SLUDGE	F005,flammable sludge	101	17	16	

TABLE 4  
WASTE CONSTITUENTS & RGNS  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS		
C 4267	TRICHLOROETHYLENE FILTERS	F002,TCE,Chlorinated solids	17		
C 4268	OIL RAGS & DEBRIS				
C 4268	OIL RAGS & DEBRIS				
C 4268	OIL RAGS & DEBRIS				
C 4268	OIL RAGS & DEBRIS				
C 4268	OIL RAGS & DEBRIS	oil sludge	101		
C 4272	IGNITABLE PAINT FILTERS		101		
C 4273	SOIL CONTAMINATED W/CHLOR. SOLVENT	F002,PCE,TCE	17		
C 4277	NICKEL CONTAMINATED FILTERS				
C 4277	NICKEL CONTAMINATED FILTERS	Non-RCRA solids	24		
C 4277	NICKEL CONTAMINATED FILTERS				
C 4281	DEGREASER BOTTOMS (PMC 9015)	TCE,PCE,Tert butylglycidyl ether	14	17	
C 4282	DEGREASER BOTTOMS (PMC 9056)	TCE,1,4Diethylene dioxide,glycol methylene ether,SEC butanol,1,2 Butyl oxide	14	17	4
C 4282	DEGREASER BOTTOMS (PMC 9056)				
C 4282	DEGREASER BOTTOMS (PMC 9056)				
C 4290	CYANIDE CONTAMINATED DEBRIS				
C 4290	CYANIDE CONTAMINATED DEBRIS				
C 4290	CYANIDE CONTAMINATED DEBRIS	F009,Cyanide burnables	101	11	24
C 4291	SPENT METAL POWDERS	metal powders	24		
C 4291	SPENT METAL POWDERS				
C 4292	SPENT CARBON FROM NICKEL BATHS	Toxic solids	24		
C 4293	TRICHLOROETHYLENE - SLUDGE, DEBRIS	F002,TCE	17		
C 4294	WOOD PALLETS - NON HAZ. (NON RCRA SOLIDS)	wood	101		
C 4295	WAX WITH 1,1,1, TRICHLOROETHANE	F001,TCE,solvent	17		
C 4295	WAX WITH 1,1,1, TRICHLOROETHANE				
C 4295	WAX WITH 1,1,1, TRICHLOROETHANE				
C 4306	WASTE CLOTHING (NON RCRA)	non RCRA solids	101		
C 4308	PAINT SHOP DEBRIS WITH MEK (PMC 9076)	MEK,F005,D001,ignitable	19	101	
C 4311	CARBON ANODES WITH CYANIDE	F007,Cyanide burnables	101	11	
C 4316	FILTERS & DEBRIS CONTAM.	F002,F003,F005,D008,Chlorinated solids	17	24	
C 4325	MERCURY CONTAMINATED DEBRIS				
C 4325	MERCURY CONTAMINATED DEBRIS	D009,mercury	24		
C 4329	LAB PACKS-FLAMMABLE LIQUID, CORR				

TABLE 4  
WASTE CONSTITUENTS & RGNS  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS		
C 4329	LAB PACKS-FLAMMABLE LIQUID, CORR	D001,D002,ignitable sludge,corrosive	101		
C 4330	LAB PACKS - CORROSIVE LIQUID OX.	D001,D002,Lab chemicals	101		
C 4332	PCB SM. BURN. CAPACITORS (3LBS OIL)	PCB burnables	101	17	
C 4332	PCB SM. BURN. CAPACITORS (3LBS OIL)				
C 4332	PCB SM. BURN. CAPACITORS (3LBS OIL)				
C 4333	EP TOXIC FILTERS (CHROMIUM)				
C 4333	EP TOXIC FILTERS (CHROMIUM)				
C 4333	EP TOXIC FILTERS (CHROMIUM)	D007,Chromium toxic solids	24		
C 4334	1,1,1, TRICHLOROETHENE & VASOLINE (PMC 9056)	TCE,1,4 diethylene dioxide,glycomethylene ether,SEC butanols	4	14	17
C 4335	NON - RCRA ACID BURNABLES (NON RCRA SOLIDS)	no data	101		
C 4336	NON - RCRA ALKALI BURNABLES	no data	101		
C 4337	EMPTY DRUMS - < 50 PPM PCB (PCB BURNABLES)	PCB burnables	101	17	
C 4338	EMPTY DRUMS - < 50 PPM PCB (PCB BURNABLES)	PCB burnables	101	17	
C 4342	LAB PACK - NON RCRA NON DOT (LAB. CHEMICALS)	lab chemicals			
C 4343	LAB PACK - COMPRESSED GAS, FLAMMABLE	D001,flammable	101		
C 4344	BRAZING SALT AND BRICK	demolition debris, NaF mixture	15		
C 4348	LAB PACK - LITHIUM BATTERIES	D001,D003,lab chemicals	101		
C 4348	LAB PACK - LITHIUM BATTERIES				
C 4350	LAB PACK - ORGANIC PEROXIDE (LIQUID)	D001,peroxide	30	101	
C 4351	RAGS & DEBRIS MISC. NON CHLOR. SOLV.				
C 4351	RAGS & DEBRIS MISC. NON CHLOR. SOLV.	D001,F003,F005,Xylene,ignitable	101	16	
C 4351	RAGS & DEBRIS MISC. NON CHLOR. SOLV.				
C 4352	SCREENED CRUDE SULFUR (NON HAZ SLUDGE)	Sulfur	101		
C 4353	SAWDUST CONTAMINATED WITH JET FUEL	D001,ignitable sludge	101		
C 4355	SOIL CONTAMINATED WITH JET FUEL	D001,ignitable sludge	101		
C 4358	PAINT AND CHLOR. SOLVENT MIXTURE	D001,F001,F003,Xylene,flammable,acetone,tylen	101	17	19
C 4363	PRE - IMPREGNATED FIBERGLASS CLOTH	Non RCRA liquids	22		
C 4364	LIGHT BALLAST WITH PCB NON REGULATED				
C 4364	LIGHT BALLAST WITH PCB NON REGULATED	PCB burnables	101	17	
C 4365	CONT. DEBRIS <50 PPM PCB - NON REGULATED	PCB burnables	101	17	
C 4365	CONT. DEBRIS <50 PPM PCB - NON REGULATED	PCB burnables	101	17	
C 4369	POLYSULFIDE RUBBER COMPOUND (PWA 416)	D007,D035	24	19	
C 4370	CONCRETE / SOIL WITH CYANIDE	F007,F008,F009,cyanide	11	24	

TABLE 4  
WASTE CONSTITUENTS & RGNS  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	DESCRIPTION	CHEMICAL CONSTITUENTS	RGNS			
C 4371	EDM FILTERS (D000)	D008	24			
C 4374	LAB PACK - COMPRESSED GAS NON RCRA	Non RCRA gas				
C 4376	LAB PACKS - FLAMMABLE / CHROME LIQUID	D001,D007,flammable,chromium	101	24		
C 4377	METAL POWDER - (D001)	D001,D006,D007,flammable solid	101	24		
C 4380	MASKANT W/	Toluene,Xylene,petroleum distillate,D001,D039,flammable	16	101	17	
C 4383	ALKALI SLUDGE WITH C	D002,D007,chromium	24	10		
C 4385	PAINT SCRAPINGS (F005) (D008)	F005,D008	24	16	17	
C 4386	SOLIDS CONTAMINTED W/ F005	F005	16	17	106	
C 4389	FILTER PAPER WITH LOW MELT ALLOY	D006,D008	24			
C 4390	LAP PACK WASTE WATER SOLID	Na metals,D001,D003,Flammable	24	101		
C 4393	CONCRETE W/ CHROME, CYANIDE SOLV.	F008,F001,F005,D007,Chromium,Cyanide	24	11	16	17

B = TYPICAL BULK WASTES

C = TYPICAL CONTAINERIZED WASTES

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APPENDIX C-3  
PROGRAM DOCUMENTATION & SOURCE CODE

## Explanation of the Waste Product Sorting Program

### I. Explanation of the Program steps and algorithms

The program starts by reading two ASCII data files and placing the information into several arrays. The first array keeps track of the Waste product Identification Number (range-32768 - 32768). The second keeps track of the name of the waste products. (Up to 50 characters each). The third is a two dimensional array Each of the 41 columns in the array indicates whether the Waste Product contains that particular Reactivity Group Number (RGN). A fourth array keeps track of how many other Product Reactivity Groups numbers a particular Waste Product unfavorably reacts with. A final array contains the Hazardous Waste Compatibility Chart either as published or as modified for this particular company.

The program first reads the list of waste products and their RGN numbers. As it reads the file it prints out warnings about possible data entry errors for checking. Some examples include duplicate identification numbers and wastes with no RGN numbers. It then prints out exactly what was read for additional data error checking and the total number of waste products read into the list.

The next step is to read in the Hazardous Waste Compatibility Chart and print out the values used. This allows a comparison between the chart the computer uses and the ones published and also gives the person running the program a chance to double check the category sorting.

Before doing any comparisons, the program firsts check through the list of Products and removes any that do not have any RGN's associated with them. It prints out a list so that these products can then be flagged for additional checking.

Next the program offers the user a chance to check for chemicals that contain RGN numbers that are "self-exclusive". It is recommended that the user remove "self-exclusive" chemicals at least once to check for data entry errors and unstable waste products. A further complication is that when the chemicals are left in, they will end up in categories that exclude chemicals with the exact same RGN numbers as the wastes contain even though it is often safe to place these similar products together. This "self-exclusion" frequently occurs with strong acids as they generate large amounts of heat when mixed with water but are themselves aqueous solutions. Unfortunately, these qualities make them incompatible with most other chemicals and this quality makes the program run longer as it looks for safe categories in which to store these chemicals.

With all the preliminaries out of the way, the program next starts the category selection. It first goes through the list of waste products and counts how many other RGN/product combinations each waste reacts with. It then starts sorting the wastes in the reverse order of the number of "reactions". When the list is sorted, it starts with the most reactive waste product and searches through the list until it finds another waste product that has an incompatible RGN number. It then stops and removes all chemicals with that RGN number from the category. It then repeats this process until it reaches the bottom of the category. At this point, it recounts and resorts to check that the category is stable. When the category is stable, it prints out the list of chemicals in the category and goes on to sort the chemicals that were removed from the first category. The program then repeats until all chemicals with RGN's are placed in categories.

A second version of this program modifies the sorting process by removing the most reactive waste product from the category and recounting and resorting each time a chemical is removed until the category is stable. This version runs several times as long as the first version and tends to print out a proportionally large first category that contains many unreactive waste products. On these first runs the second version of the program has also separated the chemicals into more categories than the first version. This is not necessarily the case and users are encouraged to try both versions.

## II. Running the program

The program run itself is very simple. It is the data preparation that can be confusing and time consuming. The first step is to create an ASCII file that contains a list of Identification Numbers, the Waste product names, and the RGN numbers for each waste product. The ID number must occupy the first 7 spaces in a line, the name the next 48 spaces, and the RGN numbers after that in groups of 4 spaces per RGN number. An easy way to do this is to type the data into a Lotus 123 spreadsheet; formatting the first column to a width of 7, the second to 49, and the remaining columns to a width of 4. Then print to a file, making sure that the top, bottom, and left margins are set to 0; the right margin is greater than the maximum number of spaces per line, and in unformatted mode. Avoid blank lines. They tend to confuse DOS; generating an end of file marker before the true end of file.

Load and run the program from Quick Basic 4.5. (WASTE15.BAS & WASTELES.BAS) The program first asks for the maximum number of waste products to be read. Numbers over 500 may generate out of memory problems on low memory computers. The program then asks for the name of the data file containing the waste products and

RGN numbers. Enter the name from the keyboard giving any necessary drive and path designations.

The program then asks for the name of a file in which to place the results.

The program then asks for the name of the file containing the truth table.

The program disk comes with two tables. The first (TABLE.PRN) is the standard Waste Compatibility Chart as entered from Appendix 4 of "A Method of Determining the Compatibility of Hazardous Wastes" published by the EPA. (Note that this Appendix differs from Figure 6, the Hazardous Waste Compatibility Chart (graphic) itself; mostly by allowing group 107, the water reactive chemicals, to be placed in categories with a few other RGN numbers and not requiring them to be removed to completely separate categories.) The second table (PRWTABLE.PRN) was specially modified for Pratt & Whitney and removes solubility as a reason for incompatibility. This table was modified after carefully considering possible solubility problems in a specific group of chemicals and is not recommended for other use. If it is desired to create your own special use chart the Lotus spreadsheet (TABLE.WK1) used to generate the first chart is enclosed. Simply make the necessary modifications and print to a file as explained for the data file above. DO NOT print the first line with the column labels. This line is used only to eliminate confusion to people when making changes to the table itself. It is strongly recommended that changes not be made before doing a preliminary run with the original table to make sure changes will not create any dangerous conditions.

The only other question the program asks is whether one wishes to remove "self exclusive" waste products as explained above.

The program then stores the results in an ASCII file which may then be printed from DOS with the command PRINT "filename".

In that many possible combinations of RGNs and category determinations are possible and considering the fact that an optimization sub-routine was not written into the program, it is likely that the categories generated will not be optimal for any given set of waste types. Therefore, it is recommended that the results be reviewed by experienced personnel.



```

'Read id#' chemicals, and Reactivity Groups into an array
' IdNo(*) = Identification # of waste product
' Waste$(*) = Name of Waste product
' ReactGroup(*,*) = Reactivity Groups for each Waste product (use 7 per
'     waste for test run.  max later = 10)
' NumGroup = max number of Reactivity Groups
' line$ = line of text from file
' wasteNo% = total number of waste products
' Flag = on if no Reactivity Groups. off if a group exists
' Rbd$(*,*) = Hazardous Waste Compatability Chart
' Incompat(*) = Number of other Chemicals this chemical reacts with
' Tag(*) = Order of the chemical in the array

CLS
DIM NumChem AS INTEGER
NumChem = 500
INPUT "maximum number of chemicals"; NumChem
DIM Waste(1 TO NumChem) AS STRING * 50
Flag% = 1 WasteNo% = 1 NumGroup% = 7
DIM ReactGroup(1 TO NumChem, 1 TO 41) AS INTEGER, IdNo(1 TO NumChem) AS INTEGER

DIM Rbd(1 TO 41, 1 TO 41) AS INTEGER
DIM incompat(1 TO NumChem) AS INTEGER
DIM Tag(1 TO NumChem) AS INTEGER

FOR I% = 1 TO NumChem
    Tag(I%) = I%
NEXT I%: ' original order is the same as the chemicals were read
INPUT "name of data file"; file$
OPEN file$ FOR INPUT AS #1: 'Add method of changing later
'OPEN "a:test.prn" FOR INPUT AS #1: 'Add method of changing later
INPUT "name of output file"; file$
OPEN file$ FOR OUTPUT AS #3
CLS
DO UNTIL EOF(1)
Blank:  ' reads the next line
    LINE INPUT #1, line$ IF LEN(line$) > 0 THEN
        'After the first waste product has been saved, start checking for duplicates
        IF WasteNo% > 1 THEN
            'if the first 7 characters are blank, the name exceeded 48 characters and was split between 2 lines
            IF VAL(LEFT$(line$, 7)) = 0 THEN
                Waste$(WasteNo% - 1) = Waste$(WasteNo% - 1) + RTRIM$(MID$(line$, 8, 48))
                PRINT #3, "IdNo "; IdNo(WasteNo% - 1); " is a two line Waste product"
                GOSUB CheckGroups
                Chem% = WasteNo% - 1
                GOSUB CheckNoGroups
                IF Flag% THEN PRINT #3, "IdNo"; IdNo(WasteNo% - 1); " still has no Reactivity Groups"
                GOTO endloop ' go read the next line
            END IF
            'check to see if this waste id was the same as the last one
            IF VAL(LEFT$(line$, 7)) = IdNo(WasteNo% - 1) AND LEN(line$) > 0 THEN
                GOSUB CheckGroups
            END IF
        END IF
        WasteNo% = WasteNo% + 1
        IdNo(WasteNo%) = IdNo(WasteNo% - 1) + 1
        Waste$(WasteNo%) = line$
        IF LEN(Waste$(WasteNo%)) > 50 THEN
            PRINT #3, "Waste product name exceeded 50 characters.  Truncated."
        END IF
        IF WasteNo% = 7 THEN
            PRINT #3, "Maximum number of waste products reached.  Stopping."
            GOTO endloop
        END IF
    END IF
    IF EOF(1) THEN
        PRINT #3, "End of file reached.  Stopping."
        GOTO endloop
    END IF
    IF LEN(line$) = 0 THEN
        PRINT #3, "Blank line.  Skipping."
        GOTO endloop
    END IF
    IF LEN(line$) > 0 THEN
        Tag(WasteNo%) = Tag(WasteNo% - 1) + 1
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 1) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 2) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 3) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 4) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 5) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 6) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 7) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 8) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 9) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 10) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 11) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 12) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 13) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 14) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 15) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 16) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 17) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 18) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 19) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 20) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 21) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 22) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 23) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 24) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 25) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 26) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 27) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 28) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 29) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 30) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 31) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 32) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 33) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 34) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 35) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 36) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 37) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 38) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 39) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 40) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 41) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 42) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 43) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 44) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 45) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 46) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 47) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 48) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 49) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 50) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 51) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 52) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 53) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 54) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 55) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 56) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 57) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 58) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 59) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 60) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 61) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 62) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 63) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 64) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 65) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 66) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 67) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 68) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 69) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 70) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 71) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 72) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 73) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 74) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 75) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 76) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 77) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 78) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 79) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 80) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 81) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 82) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 83) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 84) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 85) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 86) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 87) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 88) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 89) = Tag(WasteNo%)
    END IF
    IF LEN(line$) > 0 THEN
        ReactGroup(WasteNo%, 90) = Tag(WasteNo%)
    END IF
    IF LEN(line$) &
```

```

    PRINT #3, "IdNo"; IdNo(WasteNo% - 1); "is located in two facilities"
    Chem% = WasteNo% - 1
    GOSUB CheckNoGroups
    IF Flag% THEN PRINT #3, "Id No."; IdNo(WasteNo% - 1); " still has no Reactivity Groups"
    GOTO Blank ' go read the next line
END IF
END IF
'place the values in the arrays
IdNo(WasteNo%) = VAL(LEFT$(line$, 7))
Waste$(WasteNo%) = RTRIM$(MID$(line$, 8, 48))
FOR IX = 56 TO LEN(line$) + 1 STEP 4
    temp% = VAL(MID$(line$, IX, 4))
    IF temp% > 100 THEN temp% = temp% - 66: ' Change RGN 101-107 to 35-41
    IF temp% > 0 THEN ReacGroup(WasteNo%, temp%) = 1
NEXT IX
IF LEN(line$) < 56 THEN PRINT #3, "No Reactivity Group Numbers for "; IdNo(WasteNo%); " on this line."
PRINT WasteNo%; " "; IdNo(WasteNo%), Waste$(WasteNo%)
WasteNo% = WasteNo% + 1
END IF
endloop:
LOOP
CLOSE #1
WasteNo% = WasteNo% - 1
*****
' Print out the entire list of chemicals read.
***** WIDTH #3, 130
PRINT #3,
PRINT #3, "Final list of Chemicals"
PRINT #3, "ID # "; " Waste Name "; TAB(50); " Reactvity Group Numbers " FOR Count% = 1 TO WasteNo%
PRINT #3, TAB(1); IdNo(Count%); Waste$(Count%); TAB(60);
FOR IX = 1 TO 41
    IF ReacGroup(Count%, IX) THEN
        IF IX > 34 THEN
            PRINT #3, ; IX + 66;
        ELSE
            PRINT #3, ; IX;
        END IF
    END IF
NEXT IX
PRINT #3, NEXT Count% PRINT #3,
PRINT #3, WasteNo%; "Chemicals read into the list."
***** GOSUB ReadReactionTable: '
Read in the Hazardous Waste Compatability Chart
PRINT #3,
PRINT #3, "Hazardous Waste Compatability Chart"
PRINT #3, TAB(4);
FOR IX = 1 TO 41
    IF IX < 34 THEN
        PRINT #3, USING "###"; IX;
    ELSE
        PRINT #3, USING "###"; IX + 66;
    END IF NEXT IX
FOR IX = 1 TO 41
    IF IX < 34 THEN
        PRINT #3, TAB(2); USING "##"; IX;
    END IF
NEXT IX

```

```

ELSE
    PRINT #3, TAB(1); USING "###"; I% + 66;
END IF
FOR J% = 1 TO 41
    IF J% < 34 THEN
        PRINT #3, USING "###"; Rbd(I%, J%);
    ELSE
        PRINT #3, USING "###"; Rbd(I%, J%);
    END IF
NEXT J%
NEXT I%
PRINT #3,
***** ' Next look through the list
of Chemicals for ones that have no reactivity
' group numbers and remove them from the list
***** GOSUB LookBlank:
'FOR I% = 1 TO Bottom%
'    PRINT #3, I%; Tag(I%); IdNo(Tag(I%)); Waste$(Tag(I%))
'NEXT I%
'-----
' Throw out the Chemicals that are not Compatible with themselves
'-----
PRINT " You now have the option to remove chemicals that have RGN #'s that"
PRINT " are incompatible within the chemical itself."
PRINT " Remove these chemicals for the first run through the program as a"
PRINT " means of checking for unstable chemicals and data entry errors."
PRINT " Once you have corrected the data entry errors and removed unstable"
PRINT " chemicals from the list, run the program a SECOND time WITHOUT"
PRINT " removing these chemicals."
PRINT
PRINT "Remove self exclusive chemicals from the list? (Y)es or no? "
INPUT " Type 'Y' to remove the self exclusive chemicals "; test$
IF test$ = "Y" OR test$ = "y" THEN GOSUB SelfBlow
'-----
' Sort the Wasteproducts in the reverse order of the number of other
' chemicals that they will react with.
'----- TopBin% = 1
BottomBin% = Bottom% PRINT #3, TIMES
GOSUB Countblow:
GOSUB Sort:
'-----
' Start with the first chemical and start throwing out things that react
' with it
'-----
BinNo% = 1
DO
    GOSUB SelectBin
    BinNo% = BinNo% + 1
    IF BottomBin% < Bottom% THEN
        TopBin% = BottomBin% + 1
        BottomBin% = Bottom%
    ELSE
        EXIT DO
    END IF
GOSUB Countblow

```

```

      GOSUB Sort:
LOOP
PRINT #3,
PRINT #3, TIMES
CLOSE #3
END
*****
' Checks to see if the second line has additional Reactivity Group #s
*****
CheckGroups:
'look for a non blank Reactivity Group in current line
FOR GX = 56 TO LEN(line$) + 1 STEP 4
  temp% = VAL(MID$(line$, GX, 4))
  IF temp% > 100 THEN temp% = temp% - 66: ' Change RGN 101-107 to 35-41
  IF temp% > 0 THEN ReactGroup(WasteNo% - 1, temp%) = 1
NEXT GX
RETURN
END
*****
' Checks to see if this Waste has no Reactivity Group Numbers listed.
*****
CheckNoGroups:
FOR IX = 1 TO 41
  IF ReactGroup(Tag(ChemX), IX) > 0 THEN
    Flag% = 0
    RETURN
  ELSE
    Flag% = 1
  END IF
NEXT IX
RETURN
END
***** ' This Subroutine reads in
the 41X41 Hazardous Waste Compatability Chart
' If the array value is 1, the chemicals are incompatable.
*****

ReadReactionTable:
file$ = "a:table.prn"
INPUT "file containing Hazardous Waste Compatability Chart "; file$
OPEN file$ FOR INPUT AS #2: ' open data file
'OPEN "A:PRWTABLE.prn" FOR INPUT AS #2: ' open data file
PRINT "Reading Compatability Chart"
FOR Row% = 1 TO 41: ' 41 rows
  LINE INPUT #2, line$
  FOR Column% = 1 TO 41 ' 41 columns of 3 chars. each
    Rbd(Row%, Column%) = VAL(MID$(line$, 3 * Column% - 2, 3))
    IF Rbd(Row%, Column%) > 1 THEN PRINT "Error = # > 1"
  NEXT Column%
NEXT Row%
CLOSE #2
RETURN
END

```

```

*****
'Subroutine to remove chemicals with no Reactivity Group #s from the list
*****

LookBlank:
Bottom% = WasteNo% ' Assume all chemicals have RGN's
Flag% = 1
PRINT "Looking for Chemicals with No Reactivity Group #'s"
PRINT #3,
PRINT #3, "The Following Chemicals have no Reactivity Group #'s"
Chem% = 1
DO WHILE Chem% <= Bottom%
    GOSUB CheckNoGroups
    IF Flag% THEN
        PRINT #3, IdNo(Tag(Chem%)); Waste$(Tag(Chem%))
        temp% = Tag(Bottom%)
        Tag(Bottom%) = Chem% ' Move chemical to the end of the list
        Tag(Chem%) = temp%
        Bottom% = Bottom% - 1 'One less chemical to check!
        Chem% = Chem% - 1 'go back and recheck the new chemical in old spot
    END IF
    Chem% = Chem% + 1
LOOP
PRINT #3, Bottom%; " Wasteproducts left in the list."
RETURN
END
*****
' Check Chemicals that are Self Incompatible
*****

SelfBlow:
PRINT "Looking for Self Incompatible Chemicals"
PRINT #3,
PRINT #3, " These Chemicals are Self Incompatible"
Chem% = 1
BegColumn% = 1
DO WHILE Chem% <= Bottom% ' Check list of all with RGN's
    ' PRINT Chem%, Bottom%
    DO WHILE BegColumn% < 41 ' 41st compatible with 41
        FOR EndColumn% = 41 TO BegColumn% + 1 STEP -1
            IF ReacGroup(Tag(Chem%), BegColumn%) AND ReacGroup(Tag(Chem%), EndColumn%) THEN
                IF Rbd(BegColumn%, EndColumn%) THEN
                    PRINT #3, IdNo(Tag(Chem%)); Waste$(Tag(Chem%)); TAB(60); BegColumn%; EndColumn%
                    temp% = Tag(Bottom%)
                    Tag(Bottom%) = Tag(Chem%)
                    Tag(Chem%) = temp% 'Move Self Incompatible Chemicals to Bottom of List
                    Chem% = Chem% - 1 ' go back and check the new chemical @ old position
                    Bottom% = Bottom% - 1 ' one less chemical to compare
                    BegColumn% = 1
                EXIT DO
            END IF
        END IF
        NEXT EndColumn%
        BegColumn% = BegColumn% + 1
    LOOP
    Chem% = Chem% + 1
    BegColumn% = 1

```

```

LOOP
PRINT #3, Bottom%; " Waste Products left in the List." RETURN
END
*****
' Count the number of other chemicals that each chemical will react with
*****
Countblow:
PRINT "Counting the number of incompatibilities"
PRINT TIMES
start$ = TIMES
'PRINT #3,
'PRINT #3, TAB(5); "Id #"; "Waste product"; TAB(50); "# Incompatibilities"
ERASE incompat
REDIM incompat(1 TO WasteNo%) AS INTEGER 'start new comparison
FOR Chem% = TopBin% TO BottomBin%
  FOR Col% = 1 TO 41
    IF ReacGroup(Tag(Chem%), Col%) THEN
      FOR ComChem% = Chem% + 1 TO BottomBin% 'already checked for self instability
        FOR ComCol% = 1 TO 41
          IF ReacGroup(Tag(ComChem%), ComCol%) AND Rbd(Col%, ComCol%) THEN
            incompat(Tag(Chem%)) = incompat(Tag(Chem%)) + 1
            incompat(Tag(ComChem%)) = incompat(Tag(ComChem%)) + 1
          END IF
        NEXT ComCol%
      NEXT ComChem%
    END IF
  NEXT Col%
  PRINT #3, Chem%; IdNo(Tag(Chem%)); Waste$(Tag(Chem%)); TAB(60); incompat(Tag(Chem%))
  FOR I% = TopBin% TO BottomBin%
    PRINT #3, Incompat(Tag(I%));
  NEXT I%
  PRINT Chem%, start$, TIMES
NEXT Chem%
RETURN
END
*****
' Sort the Waste products in the bin by the reverse order of reactions
*****
Sort:
PRINT "Sorting the Wastes in the Current Bin"
'PRINT #3, "Sorting the Wastes in the Current Bin"
sorted% = 0
DO WHILE sorted% < 1
  sorted% = 1
  FOR In% = TopBin% TO BottomBin% - 1
    IF incompat(Tag(In%)) < incompat(Tag(In% + 1)) THEN
      temp1% = Tag(In%)
      Tag(In%) = Tag(In% + 1)
      Tag(In% + 1) = temp1%
      sorted% = 0
    END IF
  NEXT In%
NEXT In%
LOOP
'for j% = TopBin% TO BottomBin%
' PRINT #3, j%; IdNo(Tag(j%)); Waste$(Tag(j%)); TAB(60); incompat(Tag(j%))

```

```

NEXT j%
RETURN
END
*****
' Separate the Chemicals into Bins
*****
SelectBin:
PRINT " Separating the Chemicals into Bins"
DO WHILE incompat(Tag(TopBin%)) > 0
    BadRGN% = 0
    ' Look for 1st incompatibility'
    Chem% = TopBin%
    DO WHILE Chem% <= BottomBin%
        FOR Col% = 1 TO 41
            IF ReacGroup(Tag(Chem%), Col%) THEN
                ComChem% = Chem% + 1
                DO WHILE ComChem% <= BottomBin%'already checked for self Instability
                    ComCol% = 1
                    DO WHILE ComCol% <= 41 AND ComChem% <= BottomBin%
                        IF ReacGroup(Tag(ComChem%), ComCol%) AND Rbd(Col%, ComCol%) THEN
                            BadRGN% = ComCol%
                            Prod% = ComChem%
                            ComCol% = 0
                            DO WHILE Prod% <= BottomBin%
                                IF ReacGroup(Tag(Prod%), BadRGN%) > 0 THEN
                                    temp% = Tag(BottomBin%)
                                    Tag(BottomBin%) = Tag(Prod%)
                                    Tag(Prod%) = temp%
                                    Prod% = Prod% - 1
                                    BottomBin% = BottomBin% - 1
                                END IF
                                Prod% = Prod% + 1
                            LOOP
                        END IF
                        ComCol% = ComCol% + 1
                    LOOP
                    ComChem% = ComChem% + 1
                LOOP
            END IF
        NEXT Col%
        PRINT #3, Chem%; IdNo(Tag(Chem%)); Waste$(Tag(Chem%)); TAB(50); Incompat(Tag(Chem%))
        FOR I% = TopBin% TO BottomBin%
            PRINT #3, Incompat(Tag(I%));
        NEXT I%
        Chem% = Chem% + 1
        LOOP
        GOSUB Countblow
        GOSUB Sort
    LOOP
PRINT #3, " "
PRINT #3,
PRINT #3, "All Waste Products in Bin # "; BinNo%
FOR Row% = TopBin% TO BottomBin%
    PRINT #3, USING "####"; TAB(1); IdNo(Tag(Row%));
    PRINT #3, TAB(6); Waste$(Tag(Row%)); TAB(60);

```

```

FOR IX = 1 TO 41
  IF ReacGroup(Tag(Row%), IX) THEN
    IF IX > 34 THEN
      PRINT #3, ; IX + 66;
    ELSE
      PRINT #3, ; IX;
    END IF
  END IF
NEXT IX
NEXT Row%
RETURN
END
*****

```



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APPENDIX C-4  
MATERIAL HAZARD RATING

TABLE 6  
MATERIAL HAZARD RATINGS  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER 1990

ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
0001	NITRIC ACID (PMC 1000)	3	0	0
0001	NITRIC ACID (PMC 1000)	3	0	0
0002	CHROMIC ACID (PMC 1001)	3	0	1
0003	MURIATIC ACID (PMC 1002)	3	0	0
0003	MURIATIC ACID (PMC 1002)	3	0	0
0008	HYDROFLUORIC ACID	4	0	0
0014	OXALIC ACID (PMC 1016)	2	1	0
0022	SULFURIC ACID	3	0	2
0023	ALKALI CLEANER (LIGHT DUTY) (PMC 1252)	4	0	3
0025	ALKALI CLEANER (LIGHT DUTY)(PMC 1255)	3	0	1
0026	ALKALI CLEANER (HEAVY DUTY)	3	0	1
0035	ALKALINE RUST REMOVER (PMC 1269)	3	0	1
0038	ALKALI CLEANER (PMC 1272)			
0047	ALKALI CLEANER (SPRAY WASHER TYPE)(PMC 1282)	0	1	0
0049	ALKALI CLEANER (GEN. PURP.) (PMC 1284)			
0075	BLACK OXIDE SALTS (FUSED)(PMC 1504)	3	0	3
0076	SODIUM CYANIDE (PMC 1505)	3	0	0
0084	SILVER PLATE BRIGHTENER (PMC 1513)	2	2	1
0088	ROCHELLE SALT (PMC 1518)			
0119	SULFAMIC ACID (PMC 1550)			
0127	SODIUM NITRITE (PMC 1558)	1	0	0
0129	SODIUM NITRATE (PMC 1560)	1	0	0
0130	SODIUM CITRATE (PMC 1561)			
0133	SALT/DESCALING TITANIUM/TI ALLOY PT (PMC 1566)	3	0	1
0144	CAUSTIC SODA (PMC 1601)	3	0	1
0144	CAUSTIC SODA (PMC 1601)	3	0	1
0149	POTASSIUM HYDROXIDE (PMC 1606)	3	0	1
0153	WETTING AGENT (PMC 1610)			
0167	CHROMATE CONVERSION SALTS-ALUMINUM (PMC 1631)	3	0	1
0199	AMMONIUM HYDROXIDE, CONCENTRATED (PMC 1667)	3	1	2
0199	AMMONIUM HYDROXIDE, CONCENTRATED (PMC 1667)	3	1	2
0200	AMMONIUM HYDROXIDE, DILUTE (PMC 1668)	3	1	2
0200	AMMONIUM HYDROXIDE, DILUTE (PMC 1668)	3	1	2
0220	CHROMATE CONVERSION SALTS-MAGNESIUM (PMC 1690)	3	0	1
0249	EPOXY RESIN (PMC 1727)	3	2	2
0259	IND X-RAY AUTO DEVLP REPLN SOLU. (PMC 1739)	3	2	1
0269	SCREENED CRUDE SULFUR (PMC 1753)	2	1	0
0315	CHEMICAL MILLING MASKANT (PMC 1801)	2	3	0
0316	SODIUM HYDROXIDE (LIQUID)(PMC 1803)	3	0	1
0316	SODIUM HYDROXIDE (LIQUID) (PMC 1803)	3	0	1
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)	2	2	1
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)	2	2	1
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)	2	2	1
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)	2	2	1
0319	SODIUM HYDROXIDE (PMC 1807)	3	0	1
0319	SODIUM HYDROXIDE (PMC 1807)	3	0	1
0333	X-RAY ACETIC ACID STOP BATH (PMC 1821)	2	2	1
0335	GLASS CERAMIC PRECOAT (GREEN)(PMC 1823)	3	1	1
0336	GLASS CERAMIC PRECOAT (YELLOW)(PMC 1824)	3	3	2

TABLE 6  
MATERIAL HAZARD RATINGS  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER 1990

ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
0562	LIQUID POLISHING COMPOUND (PMC 3134)			
0573	POWDER-CONFINED ABRASIVE FINISH. (PMC 3144)			
0616	LAYOUT AND IDENTIFICATION DYE (PMC 4039)	2	3	0
0617	PURPLE MARK INK-PORUS RUB STMPs (PMC 4040)			
0619	PURPLE INK SOLVENT (ETH GLY MON ETH) (PMC4042)	2	4	1
0630	INK, METAL MARKING (PMC 4057)	1	2	0
0684	COMP, PROTEC, STRIP, PLASTIC (PMC 4153)			
0688	CEMENT (DECALCOMANIA) (PMC 4158)	2	3	1
0890	POTASSIUM HYDROXIDE (PMC 7029)	3	0	1
0890	POTASSIUM HYDROXIDE (PMC 7029)	3	0	1
0890	POTASSIUM HYDROXIDE (PMC 7029)	3	0	1
0893	SOLVENT, STODDARD (PMC 9001)	0	2	0
0893	SOLVENT, STODDARD (PMC 9001)	0	2	0
0893	SOLVENT, STODDARD (PMC 9001)	0	2	0
0893	SOLVENT, STODDARD (PMC 9001)	0	2	0
0894	OIL, MINERAL SEAL (PMC 9002)	0	2	0
0895	TRICHLOROETHYLENE (LOW RESIDUE)(PMC 9003)	2	3	0
0899	ACETONE (PHENOL FREE) (PMC 9008)	1	3	0
0899	ACETONE (PHENOL FREE) (PMC 9008)	1	3	0
0901	PETROLEUM SOLVENT (PMC 9010)	0	2	0
0901	PETROLEUM SOLVENT (PMC 9010)	0	2	0
0901	PETROLEUM SOLVENT (PMC 9010)	0	2	0
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)	2	1	0
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)	2	1	0
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)	2	1	0
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)	2	1	0
0904	KEROSENE (PMC 9021)	0	2	0
0905	THINNER, LACQUER (GEN. PURP.)(PMC 9022)	2	3	0
0905	THINNER, LACQUER (GEN. PURP.)(PMC 9022)	2	3	0
0905	THINNER, LACQUER (GEN. PURP.)(PMC 9022)	2	3	0
0914	SPRAY TYPE CLEANER, BUFFERED ALKALI (PMC9046)	3	1	0
0919	ELECTRIC MOTOR CLEANER (PMC 9054)	2	3	0
0921	1,1,1-TRICHLOROETHANE (RECLAIM.)(PMC 9056)	3	3	1
0921	1,1,1-TRICHLOROETHANE (RECLAIM.)(PMC 9056)	3	3	1
0921	1,1,1-TRICHLOROETHANE (RECLAIM.)(PMC 9056)	3	3	1
0922	ALKALINE DRAWING COMPOUND REMOVER (PMC 9057)	3	0	1
0940	METHYL ETHYL KETONE (PMC 9076)	1	3	0
0940	METHYL ETHYL KETONE (PMC 9076)	1	3	0
0940	METHYL ETHYL KETONE (PMC 9076)	1	3	0
0943	ALKALINE RUST STRIPPER (PMC 9081)	3	1	1
0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)			
0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)			
0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)			
0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)			
0949	TRICHLOROTRIFLOROETHANE RECLAIM. (PMC 9087)			
0950	PERCHLOROETHYLENE, VAPOR DEGREASER (PMC 9088)	2	0	0
0951	METHANOL (PMC 9089)	1	3	0
0956	ISOPROPYL ALCOHOL, TECH. GRADE (PMC 9094)	1	3	0
0957	METAL CLEANER (PMC 9095)	3	0	2

TABLE 6  
MATERIAL HAZARD RATINGS  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
0963	SFT FM COR % COMP MIL-CL11796 (PMC 9109)	2	4	1
0970	COR PREV COMP FNGRPRNT MIL-C-15074 (PMC 9118)	0	2	0
0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)	0	1	0
0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)	0	1	0
0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)	0	1	0
0985	GRIND. COMP, OIL-TYPE (STAND. DTY)(PMC 9205)	0	1	0
0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)	0	1	0
0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)	0	1	0
0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)	0	1	0
0999	HI SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)	0	1	0
0999	HI SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)	0	1	0
1000	LOW SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)			
1000	LOW SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)			
0081	SODIUM CARBONATE (PMC 1510)	4	0	3
1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)	0	1	0
1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)	0	1	0
1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)	0	1	0
1022	INHIBITED ETHYLENE GLYCOL (PMC 9380)	1	1	0
1022	INHIBITED ETHYLENE GLYCOL (PMC 9380)	1	1	0
1030	FLUORESCENT EMULSIFIER (PMC 9408)			
1056	RED DYE (PMC 9505)			
1085	MASKING WAX COMPOUND (PMC 9551)	0	1	0
1085	MASKING WAX COMPOUND (PMC 9551)	0	1	0
1126	TABLE WAY OIL (PMC 9600)	2	1	0
1130	WHITE PETROLATUM (PMC 9609)			
1210	BRAZING ALLOY (GREEN STOP) (PMC 9757)			
1216	HYDRAULIC OIL (PMC 9805)	2	3	2
1216	HYDRAULIC OIL (PMC 9805)	2	3	2
1216	HYDRAULIC OIL (PMC 9805)	2	3	2
1216	HYDRAULIC OIL (PMC 9805)	2	3	2
1217	LUBRICATING & HYDRAULIC OIL (PMC 9807)	0	1	0
1217	LUBRICATING & HYDRAULIC OIL (PMC 9807)	0	1	0
1218	HYDRAULIC OIL (600 SECOND VISCOSITY)(PMC 9810)			
1226	HYDRAULIC OIL, 150 SUS (PMC 9826)			
1232	INHIBITED HYDRAULIC OIL (PMC 9834)	2	3	2
1232	INHIBITED HYDRAULIC OIL (PMC 9834)	2	3	2
1236	HYD FLUID FIRE RES VISC APPX 45045C (PMC9843)	2	1	0
1251	AUTOMOTIVE CRANKCASE OIL (SAE 30)(PMC 9859)			
1253	VACUUM PUMP OIL (PMC 9862)	0	1	0
1253	VACUUM PUMP OIL (PMC 9862)	0	1	0
1261	OIL, AUTOMOTIVE ENGINE LUB SAE 30 (PMC 9871)			
1271	SILICONE LIQUID (PMC 9890)			
1305	PARTING COMPOUND (PMC 9963)	0	3	0
1314	DEVELOPER (PMC 4381)			
1501	ANODIZING SOLUTION (PS 1)	3	0	2
1501	ANODIZING SOLUTION (PS 1)	3	0	2
1502	MURIATIC ACID SOLUTION-20% (PS 3)	3	0	0
1507	NITRIC ACID SOLUTION - 10% (PS 9)	3	0	0
1509	NITRIC ACID SOLUTION - 50% (PS 11)	3	0	0

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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
1509	NITRIC ACID SOLUTION - 50% (PS 11)	3	0	0
1509	NITRIC ACID SOLUTION - 50% (PS 11)	3	0	0
1509	NITRIC ACID SOLUTION - 50% (PS 11)	3	0	0
1509	NITRIC ACID SOLUTION - 50% (PS 11)	3	0	0
1509	NITRIC ACID SOLUTION - 50% (PS 11)	3	0	0
1510	PHOSPHORIC ACID SOLUTION - 70% (PS 12)	2	0	0
1510	PHOSPHORIC ACID SOLUTION - 70% (PS 12)	2	0	0
1512	NICKEL STRIKE SOLUTION (PS 14)	3	0	0
1522	SULFURIC ACID SOLUTION - 40% (PS 25)	3	0	2
1522	SULFURIC ACID SOLUTION - 40% (PS 25)	3	0	2
1527	INHIBITED ACID SOLUTION - 100% (PS 31)	3	0	0
1527	INHIBITED ACID SOLUTION - 100% (PS 31)	3	0	0
1527	INHIBITED ACID SOLUTION - 100% (PS 31)	3	0	0
1527	INHIBITED ACID SOLUTION - 100% (PS 31)	3	0	0
1531	CHROMATE CONVERSION SOLUTION (PS 36)	3	2	0
1532	ACID CLNR/WELDABLE AMS4026 AL ALLY (PS 37)	3	0	0
1533	TITANIUM ETCHING SOLUTION (PS 38)	4	0	0
1540	INHIBITED ACID SOLUTION (PS 47)	3	3	1
1541	NITRIC-HYDROFLUORIC SOLUTION (PS 48)	4	0	0
1541	NITRIC-HYDROFLUORIC SOLUTION (PS 48)	4	0	0
1541	NITRIC-HYDROFLUORIC SOLUTION (PS 48)	4	0	0
1542	HYDROFLUORIC-NITRIC ACID SOLU. (PS 49)	4	0	0
1542	HYDROFLUORIC-NITRIC ACID SOLU. (PS 49)	4	0	0
1543	SULFURIC ACID SOLUTION - 10% (PS 50)	3	0	2
1543	SULFURIC ACID SOLUTION - 10% (PS 50)	3	0	2
1545	CAUSTIC SODA SOLUTION - 3% (PS 52)	3	0	1
1545	CAUSTIC SODA SOLUTION - 3% (PS 52)	3	0	1
1546	MURIATIC ACID - 65% (PS 53)	3	0	0
1546	MURIATIC ACID - 65% (PS 53)	3	0	0
1546	MURIATIC ACID - 65% (PS 53)	3	0	0
1546	MURIATIC ACID - 65% (PS 53)	3	0	0
1547	SULFURIC-HYDROFLUORIC ACID SOLU. (PS 54)	4	0	2
1557	ANODIZE SEAL SOLUTION (PS 66)	3	2	1
1557	ANODIZE SEAL SOLUTION (PS 66)	3	2	1
1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)	3	0	1
1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)	3	0	1
1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)	3	0	1
1585	ALUMINUM BRAZING SALT BATH (PS 103)	2	0	0
1593	PAINT STRIPPING SOLUTION (PS 110)	3	0	1
1594	SILVER-COPPER-PALLADIUM BRAZE ALLOY (PS 112)			
1597	CHROMIUM PLATING SOLUTION (PS 115)	3	0	2
1598	CHROMIC ACID SOLUTION (PS 116)	3	0	1
1601	CHROMIUM PLATING SOLUTION (PS 119)	3	0	2
1601	CHROMIUM PLATING SOLUTION (PS 119)	3	0	2
1604	COPPER STRIP SOLU. (NONELECTROLYT)(PS 122)	3	0	0
1607	NITRIC ACID SOLU. - 20% (AIRPORTS)(PS 126)	3	0	0
1607	NITRIC ACID SOLU. - 20% (AIRPORTS)(PS 126)	3	0	0
1607	NITRIC ACID SOLU. - 20% (AIRPORTS)(PS 126)	3	0	0
1612	PAINT STRIPPING SOLUTION (PS 131)	3	0	1

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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
1612	PAINT STRIPPING SOLUTION (PS 131)	3	0	1
1628	ANODIZE SEALING SOLUTION (PS 148)	3	0	1
1649	ALKALI SMUT REMOVAL SOLUTION (PS 211)	3	0	1
1649	ALKALI SMUT REMOVAL SOLUTION (PS 211)	3	0	1
1652	ALKALI CLEAN. (HVV DTY) DRAWING COM (PS 214)	3	0	1
1653	ALKALI CYANIDE CLEAN. SOLU (HVV DTY)(PS 215)	3	0	1
1657	DESCALING SOLUTION (PS 222)	4	0	0
1657	DESCALING SOLUTION (PS 222)	4	0	0
1657	DESCALING SOLUTION (PS 222)	4	0	0
1657	DESCALING SOLUTION (PS 222)	4	0	0
1657	DESCALING SOLUTION (PS 222)	4	0	0
1657	DESCALING SOLUTION (PS 222)	4	0	0
1660	11% SODIUM HYDROXIDE SOLUTION (PS 225)	3	0	1
1660	11% SODIUM HYDROXIDE SOLUTION (PS 225)	3	0	1
1674	CHEMICAL MILLING SOLUTION (PS 249)	3	0	0
1674	CHEMICAL MILLING SOLUTION (PS 249)	3	0	0
1677	WATER INHIBITOR SOLUTION (PS 253)			
1678	ALKALI CLEANER SOLUTION (PS 254)			
1689	SULFURIC ACID-SODIUM DICHROMATE SOL (PS 267)	3	0	2
1690	ELECTROCHEMICAL MACHINING (PS 269)	3	0	1
1701	ALCOHOL WATER RINSE (PS 279)	1	3	1
1703	COLUMBIUM CLEANING SOLUTION (PS 281)	4	0	0
1711	CYANIDE SOLUTION (PS 302)	3	0	0
1715	SILVER PLATE SOLUTION (PS 306)	3	1	1
1718	COPPER PLATING SOLUTION (PS 309)	3	0	1
1719	COPPER & SILVER STRIP SOLUTION (PS 310)	3	0	1
1725	NICKEL STRIP SOLUTION (PS 316)	3	0	0
1730	NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)	3	0	1
1730	NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)	3	0	1
1730	NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)	3	0	1
1740	CORCRALY STRIPPING SOLUTION (PS 331)	3	0	0
1740	CORCRALY STRIPPING SOLUTION (PS 331)	3	0	0
1740	CORCRALY STRIPPING SOLUTION (PS 331)	3	0	0
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)			
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)			
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)			
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)			
1760	COPPER STRIP SOLUTION (PS 481)	3	0	1
1762	CHROMATE CONVERSION SOLUTION IMMERS (PS 486)	3	0	1
1764	CHROMIC-PHOSPHORIC ACID ANODIZE SOL (PS 488)	3	0	1
1764	CHROMIC-PHOSPHORIC ACID ANODIZE SOL (PS 488)	3	0	1
1766	FERRIC CHLORIDE SOLUTION (PS 503)	3	0	0
1766	FERRIC CHLORIDE SOLUTION (PS 503)	3	0	0
1766	FERRIC CHLORIDE SOLUTION (PS 503)	3	0	0
1766	FERRIC CHLORIDE SOLUTION (PS 503)	3	0	0
1782	CADMIUM STRIP SOLUTION (PS 590)	0	0	3
1787	ANODIZE TOUCH-UP SOLUTION IMMER MET (PS 605)	3	0	1
1787	ANODIZE TOUCH-UP SOLUTION IMMER MET (PS 605)	3	0	1
1789	ANDOIZE TOUCH-UP SOLU. BRSH/SWAB (PS 607)	3	0	1

TABLE 6  
MATERIAL HAZARD RATINGS  
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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
1810	ETCH INSPECTION ACID SAL SOLU. (PS 631)	0	0	0
1813	TITANIUM ANODIZING SOLUTION (PS 634)	2	0	0
1814	NITRIC ACID SOLUTION - 70% (PS 635)	3	0	0
1815	HYDROCHLORIC ACID SOLUTION - 100% (PS 636)	3	0	0
1818	HYDROPHILIC EMULSIFIER SOLUTION (PS 639)	1	0	0
1821	NICKEL STRIP SOLUTION (NOW CYANIDE)(PS 644)	3	0	3
1821	NICKEL STRIP SOLUTION (NOW CYANIDE)(PS 644)	3	0	3
1821	NICKEL STRIP SOLUTION (NOW CYANIDE)(PS 644)	3	0	3
1822	HYDROFLUORIC-NITRIC ACID SOLU. (PS 645)	4	0	0
1825	NITRIC-HYDROFLUORIC SOLUTION (PS 648)	4	0	0
1827	INHIBITED ACID SOLUTION - 10% (PS 653)	3	0	0
2093	COATING, DIFFUSED ALUMINUMIDE (PS 273)	3	0	2
2151	SILICONE RUBBER COMPOUND (PWA 403)			
2160	ADHESIVE/SEALANT (PWA 416)	2	3	0
2160	ADHESIVE/SEALANT (PWA 416)	2	3	0
2162	LIQUID EPOXY RESIN (PWA 421)			
2162	LIQUID EPOXY RESIN (PWA 421)			
2233	COMPOUND, ANTI GALLING (PWA 550)	2	3	0
2452	LUBRICANT AIRCRAFT TURBINE ENGINE (PWA 521)			
2452	LUBRICANT AIRCRAFT TURBINE ENGINE (PWA 521)			
2457	ANTI GALLING COMPOUND (PWA 586)	2	3	0
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)			
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)			
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)			
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)			
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)			
2467	ALUMINUM COATING (PWA 595)	0	1	1
2470	ABLATIVE COATING COMPOUND (PWA 36752)	2	3	0
3001	WAX/PERCHLOR (RECLAIMABLE)	2	0	0
3002	WAX/PERCHLOR (DISPOSAL)	2	0	0
3002	WAX/PERCHLOR (DISPOSAL)	2	0	0
3002	WAX/PERCHLOR (DISPOSAL)	2	0	0
3002	WAX/PERCHLOR (DISPOSAL)	2	0	0
3002	WAX/PERCHLOR (DISPOSAL)	2	0	0
3003	CHLORINATED SOLVENTS (MIXTURE)	2	1	0
3003	CHLORINATED SOLVENTS (MIXTURE)	2	1	0
3003	CHLORINATED SOLVENTS (MIXTURE)	2	1	0
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)		3	1
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)		3	1
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)		3	1
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)		3	1
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)		3	1
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)		3	1
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)		3	1
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)		3	1
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)		3	1
3005	CYANIDE (MIXTURE)	3	0	0
3005	CYANIDE (MIXTURE)	3	0	0
3006	ZYGLO RINSE	3	2	1
3006	ZYGLO RINSE	3	2	1
3006	ZYGLO RINSE	3	2	1

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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
3006	ZYGLO RINSE	3	2	1
3007	SOLUBLE OIL			
3007	SOLUBLE OIL			
3007	SOLUBLE OIL			
3007	SOLUBLE OIL			
3007	SOLUBLE OIL			
3007	SOLUBLE OIL			
3008	CONCENTRATED ZYGLO (MIXTURE)	3	1	1
3008	CONCENTRATED ZYGLO (MIXTURE)	3	1	1
3008	CONCENTRATED ZYGLO (MIXTURE)	3	1	1
3010	HIGH FLASH SOLVENTS (MIXTURE)	3	3	0
3011	LOW FLASH SOLVENTS (MIXTURE)	2	4	1
3011	LOW FLASH SOLVENTS (MIXTURE)	2	4	1
3011	LOW FLASH SOLVENTS (MIXTURE)	2	4	1
3011	LOW FLASH SOLVENTS (MIXTURE)	2	4	1
3011	LOW FLASH SOLVENTS (MIXTURE)	2	4	1
3013	PCB CONTAMINATED BURNABLE LIQUID			
3013	PCB CONTAMINATED BURNABLE LIQUID			
3013	PCB CONTAMINATED BURNABLE LIQUID			
3013	PCB CONTAMINATED BURNABLE LIQUID			
3013	PCB CONTAMINATED BURNABLE LIQUID			
3014	PCB CONTAMINATED NON-BURNABLES			
3014	PCB CONTAMINATED NON-BURNABLES			
3014	PCB CONTAMINATED NON-BURNABLES			
3014	PCB CONTAMINATED NON-BURNABLES			
3016	KOLENE SALTS	3	0	1
3016	KOLENE SALTS	3	0	1
3016	KOLENE SALTS	3	0	1
3016	KOLENE SALTS	3	0	1
3017	ACID FILTERS	3	0	2
3018	CYANIDE FILTERS	3	0	0
3018	CYANIDE FILTERS	3	0	0
3019	OIL FILTERS			
3019	OIL FILTERS			
3020	ACID SLUDGE	3	0	2
3020	ACID SLUDGE	3	0	2
3020	ACID SLUDGE	3	0	2
3020	ACID SLUDGE	3	0	2
3021	ALKALI SLUDGE	3	0	1
3021	ALKALI SLUDGE	3	0	1
3021	ALKALI SLUDGE	3	0	1
3021	ALKALI SLUDGE	3	0	1
3021	ALKALI SLUDGE	3	0	1
3021	ALKALI SLUDGE	3	0	1
3022	CHROME SLUDGE			
3022	CHROME SLUDGE			
3022	CHROME SLUDGE			
3023	CYANIDE SLUDGE	3	0	0
3023	CYANIDE SLUDGE	3	0	0



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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
3023	CYANIDE SLUDGE	3	0	0
3024	OIL SLUDGE			
3024	OIL SLUDGE			
3024	OIL SLUDGE			
3024	OIL SLUDGE			
3024	OIL SLUDGE			
3025	CARBON SLUDGE			
3027	MIXED ACIDS	3	0	2
3027	MIXED ACIDS	3	0	2
3027	MIXED ACIDS	3	0	2
3027	MIXED ACIDS	3	0	2
3027	MIXED ACIDS	3	0	2
3027	MIXED ACIDS	3	0	2
3028	MIXED ALKALIES	3	0	1
3028	MIXED ALKAIES	3	0	1
3028	MIXED ALKAIES	3	0	1
3030	MIXED CHROME			
3030	MIXED CHROME			
3030	MIXED CHROME			
3030	MIXED CHROME			
3030	MIXED CHROME			
3032	DILUTED WASTE WATER			
3032	DILUTED WASTE WATER			
3032	DILUTED WASTE WATER			
3032	DILUTED WASTE WATER			
3032	DILUTED WASTE WATER			
3032	DILUTED WASTE WATER			
3032	DILUTED WASTE WATER			
3033	COLT STREET OIL	3	3	0
3033	COLT STREET OIL	3	3	0
3034	HIGH & LOW FLASH SOLVENT MIXTURES	2	3	0
3034	HIGH & LOW FLASH SOLVENT MIXTURES	2	3	0
3034	HIGH & LOW FLASH SOLVENT MIXTURES	2	3	0
3037	MINERAL OIL FROM DEWAXING			
3040	MIXTURE OF HYDRAULIC, LUB, CUTTING OIL		3	1
3040	MIXTURE OF HYDRAULIC, LUB, CUTTING OIL		3	1
3041	ECM FILTER CAKE			
3041	ECM FILTER CAKE			
3042	WASTE JET FUEL	1	3	0
3042	WASTE JET FUEL	1	3	0
3042	WASTE JET FUEL	1	3	0
3043	OILS/SOLVENTS MIXTURES	3	3	0
3043	OILS/SOLVENTS MIXTURES	3	3	0
3043	OILS/SOLVENTS MIXTURES	3	3	0
3043	OILS/SOLVENTS MIXTURES	3	3	0
3043	OILS/SOLVENTS MIXTURES	3	3	0
3043	OILS/SOLVENTS MIXTURES	3	3	0
3043	OILS/SOLVENTS MIXTURES	3	3	0
3044	PCB BURNABLE SOLIDS			

TABLE 6  
MATERIAL HAZARD RATINGS  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER 1990

ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
3044	PCB BURNABLE SOLIDS			
3044	PCB BURNABLE SOLIDS			
3044	PCB BURNABLE SOLIDS			
3044	PCB BURNABLE SOLIDS			
3046	PAINT SLUDGE		3	1
3046	PAINT SLUDGE		3	1
3046	PAINT SLUDGE		3	1
3046	PAINT SLUDGE		3	1
3046	PAINT SLUDGE		3	1
3046	PAINT SLUDGE		3	1
3046	PAINT SLUDGE		3	1
3047	NON-RCRA SOLIDS			
3047	NON-RCRA SOLIDS			
3058	DEOXIDIZER SOLUTION (PS 174)	3	0	2
3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)	3	0	1
3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)	3	0	1
3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)	3	0	1
3059	ALKALI CLEANER (HD) PHOSPATE FREE (PS 344)	3	0	1
3065	ALKALI CLEANER (LOW TEMP.) (PS 350)			
3067	SULFURIC ACID & MURIATIC ACID (PS 352)	3	0	2
3068	PHOSPHORIC ACID INHIBITOR (PS 21)	3	3	0
3070	SODIUM BISULFATE & WATER (SPMC-14)			
3071	PCB'S TRANSFORMERS			
3071	PCB'S TRANSFORMERS			
3083	PCB BURNABLE CAPACITORS (>3#'S OIL)			
3083	PCB BURNABLE CAPACITORS (>3#'S OIL)			
3083	PCB BURNABLE CAPACITORS (>3#'S OIL)			
3085	MAT'LS W/RADIOACTIVE THORIUM			
3091	#6 FUEL OIL & WATER	0	2	0
3091	#6 FUEL OIL & WATER	0	2	0
3091	#6 FUEL OIL & WATER	0	2	0
3097	HYDROGEN PEROXIDE SOLUTION (SPS 82)	2	0	3
3099	CUTTING POLYMER-MALCO 2175 (PMC 9331)			
4013	POWDER, PLASMA SPRAY, NICKEL-LLOY (PWA 1317)			
4018	POWDER, PLASMA SPRAY (PWA 1322)	0	1	1
4048	OIL WITH CHLORINATED SOLVENTS	3	3	0
4048	OIL WITH CHLORINATED SOLVENTS	3	3	0
4048	OIL WITH CHLORINATED SOLVENTS	3	3	0
4048	OIL WITH CHLORINATED SOLVENTS	3	3	0
4048	OIL WITH CHLORINATED SOLVENTS	3	3	0
4048	OIL WITH CHLORINATED SOLVENTS	3	3	0
4048	OIL WITH CHLORINATED SOLVENTS	3	3	0
4049	B3 OIL WITH HALOGENATED SOLVENTS	3	3	0
4049	B3 OIL WITH HALOGENATED SOLVENTS	3	3	0
4050	B2 OIL W/1000 PPM TOTAL HALOGEN	3	3	0
4050	B2 OIL W/1000 PPM TOTAL HALOGEN	3	3	0
4050	B2 OIL W/1000 PPM TOTAL HALOGEN	3	3	0
4050	B2 OIL W/1000 PPM TOTAL HALOGEN	3	3	0
4050	B2 OIL W/1000 PPM TOTAL HALOGEN	3	3	0
4051	B1 OIL	0	2	0

TABLE 6  
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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
4051	81 OIL	0	2	0
4051	81 OIL	0	2	0
4051	81 OIL	0	2	0
4051	81 OIL	0	2	0
4051	81 OIL	0	2	0
4051	81 OIL	0	2	0
4053	JET A FUEL FILTERS	1	3	0
4053	JET A FUEL FILTERS	1	3	0
4053	JET A FUEL FILTERS	1	3	0
4054	RAGS CONTAMINTAED WITH JET FUEL	1	3	0
4054	RAGS CONTAMINTAED WITH JET FUEL	1	3	0
4054	RAGS CONTAMINTAED WITH JET FUEL	1	3	0
4054	RAGS CONTAMINTAED WITH JET FUEL	1	3	0
4055	DEBRIS CONT W/9252 & 9015 (PMC 9252,9015)			
4056	TRAP ROCK WITH FUEL OIL	0	2	0
4057	HIGH FLASH OIL (PMC 9252, 9015)			
4059	CHLORINATED SOLVENT (PMC 9356)	3	3	0
4059	CHLORINATED SOLVENT (PMC 9356)	3	3	0
4061	ALKALI CLEANER (PS 362)			
4063	ELECTROLESS NICKEL PLATING SOLU. (PS 359)	3	0	1
4085	SOLVENT (PMC 9828)			
4100	PETROLEUM SOLVENT		3	1
4111	BETZ ENTEC 312	3	0	1
4112	METAL HYDROXIDE SLUDGE			
4116	EPOXY PRIMER (PWA 568,569, PMC 9076)	2	3	0
4116	EPOXY PRIMER (PWA 568,569, PMC 9076)	2	3	0
4116	EPOXY PRIMER (PWA 568,569, PMC 9076)	2	3	0
4123	CADMIUM			
4127	MIXED WASTE ACID	3	0	2
4127	MIXED WASTE ACID	3	0	2
4128	POTASSIUM HYDROXIDE	3	0	2
4128	POTASSIUM HYDROXIDE	3	0	2
4131	1,1,1 TRICLOR & WATER	2	1	0
4131	1,1,1 TRICLOR & WATER	2	1	0
4131	1,1,1 TRICLOR & WATER	2	1	0
4131	1,1,1 TRICLOR & WATER	2	1	0
4134	LAB PACKS - COMBUSTIBLES		3	1
4134	LAB PACKS - COMBUSTIBLES		3	1
4134	LAB PACKS - COMBUSTIBLES		3	1
4135	LAB PACKS - FLAMMABLE		3	1
4135	LAB PACKS - FLAMMABLE		3	1
4135	LAB PACKS - FLAMMABLE		3	1
4135	LAB PACKS - FLAMMABLE		3	1
4135	LAB PACKS - FLAMMABLE		3	1
4135	LAB PACKS - FLAMMABLE		3	1
4136	LAB PACKS - OXIDIZERS		3	1
4136	LAB PACKS - OXIDIZERS		3	1
4136	LAB PACKS - OXIDIZERS		3	1
4139	SODIUM HYDROXIDE SOLUTION	3	0	1
4139	SODIUM HYDROXIDE SOLUTION	3	0	1

TABLE 6  
MATERIAL HAZARD RATINGS  
PRATT & WHITNEY  
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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
4140	NICKEL CADMIUM BATTERIES			
4141	MERCURY (ST. MANIFEST FOR RECLAIM)			
4141	MERCURY (ST. MANIFEST FOR RECLAIM)			
4145	SERMETEL CONTAMINATED FILTERS			
4145	SERMETEL CONTAMINATED FILTERS			
4148	CORROSION INHIBITOR (OIL BASED)(PMC 9332)			
4159	LAB PACKS - ORM-A SOLIDS			
4161	LAB PACKS - HW LIQUID OR SOLID			
4161	LAB PACKS - HW LIQUID OR SOLID			
4161	LAB PACKS - HW LIQUID OR SOLID			
4162	LAB PACKS - CORROSIVE SOLIDS	3	0	2
4162	LAB PACKS - CORROSIVE SOLIDS	3	0	2
4163	LAB PACKS - CORROSIVE LIQUIDS	3	0	2
4163	LAB PACKS - CORROSIVE LIQUIDS	3	0	2
4163	LAB PACKS - CORROSIVE LIQUIDS	3	0	2
4163	LAB PACKS - CORROSIVE LIQUIDS	3	0	2
4163	LAB PACKS - CORROSIVE LIQUIDS	3	0	2
4164	LAB PACKS - POISON B LIQUIDS			
4164	LAB PACKS - POISON B LIQUIDS			
4164	LAB PACKS - POISON B LIQUIDS			
4165	LAB PACKS - POISON SOLIDS			
4165	LAB PACKS - POISON SOLIDS			
4166	LAB PACKS - FLAMMABLE SOLIDS		3	1
4166	LAB PACKS - FLAMMABLE SOLIDS		3	1
4166	LAB PACKS - FLAMMABLE SOLIDS		3	1
4166	LAB PACKS - FLAMMABLE SOLIDS		3	1
4168	POLYOXALKYLATED GLYCOL PART B (PMC 4118)			
4171	CHROME CONTAMINATED SOLID WASTE			
4171	CHROME CONTAMINATED SOLID WASTE			
4171	CHROME CONTAMINATED SOLID WASTE			
4171	CHROME CONTAMINATED SOLID WASTE			
4174	PERCHLOROETHYLENE AND WATER	2	1	0
4174	PERCHLOROETHYLENE AND WATER	2	1	0
4176	BERYLLIUM COMPOUND			
4178	RAGS/DEBRIS WITH MEK OR TOLUENE	2	3	1
4178	RAGS/DEBRIS WITH MEK OR TOLUENE	2	3	1
4178	RAGS/DEBRIS WITH MEK OR TOLUENE	2	3	1
4178	RAGS/DEBRIS WITH MEK OR TOLUENE	2	3	1
4178	RAGS/DEBRIS WITH MEK OR TOLUENE	2	3	1
4178	RAGS/DEBRIS WITH MEK OR TOLUENE	2	3	1
4183	PCB FLUORESCENT LIGHT BALLAST			
4183	PCB FLUORESCENT LIGHT BALLAST			
4183	PCB FLUORESCENT LIGHT BALLAST			
4183	PCB FLUORESCENT LIGHT BALLAST			
4183	PCB FLUORESCENT LIGHT BALLAST			
4183	PCB FLUORESCENT LIGHT BALLAST			
4183	PCB FLUORESCENT LIGHT BALLAST			
4185	PAINT SLUDGE WITH LEAD		3	1

TABLE 6  
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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
4186	ETHYLENE GLYCOL (NOM RCRA LIQUIDS)	1	1	0
4186	ETHYLENE GLYCOL (NOM RCRA LIQUIDS)	1	1	0
4186	ETHYLENE GLYCOL (NOM RCRA LIQUIDS)	1	1	0
4190	HYDROGEN PEROXIDE (SPS 96)	2	0	3
4192	GASOLINE	1	3	0
4194	PENETRANT (PMC 4350)	0	2	0
4194	PENETRANT (PMC 4350)	0	2	0
4194	PENETRANT (PMC 4350)	0	2	0
4195	ALKALINE PHOTOGRAPHIC DEVELOPER	3	1	1
4195	ALKALINE PHOTOGRAPHIC DEVELOPER	3	1	1
4196	ACID PHOTOGRAPHIC CHEMICAL	3	0	2
4196	ACID PHOTOGRAPHIC CHEMICAL	3	0	2
4197	ACID PHOTOGRAPHIC FIXER	3	0	2
4198	ALKALINE PHOTOGRAPHIC CHEMICAL	3	0	1
4198	ALKALINE PHOTOGRAPHIC CHEMICAL	3	0	1
4199	SOIL CONTAMINATED W/HYDROCARBONS			
4205	FLUORESCENT PENETRANT (HI SENS.)(PMC 4353)	0	2	0
4208	ZYGLO (PMC 4354)	0	2	0
4209	CADMIUM SLUDGE			
4209	CADMIUM SLUDGE			
4209	CADMIUM SLUDGE			
4209	CADMIUM SLUDGE			
4212	ORGANIC PEROXIDE (PMC 1620)			3
4216	PROPYLENE GLYCOL (PMC 1867)	0	2	0
4216	PROPYLENE GLYCOL (PMC 1867)	0	2	0
4217	PETROLEUM DISTILLATE			
4218	TONER POWDER - SOLID		3	1
4221	SUPER AGITENE-CLEANING COMPOUND	0	3	1
4223	OIL TO4225 (TRAIL ORDER) (4225)			
4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT	3	3	0
4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT	3	3	0
4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT	3	3	0
4225	OIL SLUDGE CONTM. W/ CHLOR. SOLVENT	3	3	0
4235	ELECT> DISCHARGE MACH EDM FLUID (PCM9239)			
4236	HI SPEED CUTTING OIL, HVY DTY (PMC 9252)			
4237	LOW SPEED CUTTING OIL, HVY DTY (PMC 9253)			
4239	METAL CUTTING COMPOUND, OIL TYPE (PMC 9214)			
4242	SPINDLE LUBRICATING OIL (PMC 9801)			
4243	COMPOUNDED HYDRAULIC OIL (PMC 9814)			
4248	ETCHING SOLUTION (HMI) 5XHN03	3	0	2
4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'	3	3	0
4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'	3	3	0
4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'	3	3	0
4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'	3	3	0
4249	RAGS & BURN. CONT. W/ 1,1,1 TRICH (PMC 9056)'	3	3	0
4250	ALKALINE ULTRASONIC CLEANER (SPMC - 7)	3	0	1
4251	CITRIKLEEN AND WATER (PMC 9090)	2	2	0
4252	EDM OIL FILTERS			
4252	EDM OIL FILTERS			

TABLE 6  
MATERIAL HAZARD RATINGS  
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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
4252	EDM OIL FILTERS			
4254	EDM WATER FILTER	3	0	2
4255	W WATER W/CL HYDROCARBON-NON-HAZ			
4255	W WATER W/CL HYDROCARBON-NON-HAZ			
4255	W WATER W/CL HYDROCARBON-NON-HAZ			
4256	RAGS/DEBRIS W/D001 SOLVENT		3	1
4256	RAGS/DEBRIS W/D001 SOLVENT		3	1
4256	RAGS/DEBRIS W/D001 SOLVENT		3	1
4256	RAGS/DEBRIS W/D001 SOLVENT		3	1
4257	RAGS/DEBRIS WF002 SOLVENT	3	3	0
4257	RAGS/DEBRIS WF002 SOLVENT	3	3	0
4257	RAGS/DEBRIS WF002 SOLVENT	3	3	0
4257	RAGS/DEBRIS WF002 SOLVENT	3	3	0
4257	RAGS/DEBRIS WF002 SOLVENT	3	3	0
4257	RAGS/DEBRIS WF002 SOLVENT	3	3	0
4258	RAGS/DEBRIS W/ D001,F002 SOLVENT	3	3	1
4258	RAGS/DEBRIS W/ D001,F002 SOLVENT	3	3	1
4258	RAGS/DEBRIS W/ D001,F002 SOLVENT	3	3	1
4259	RAGS/DEBRIS W/ PERCHLOROETHYLENE (PMC 9015)	2	3	1
4259	RAGS/DEBRIS W/ PERCHLOROETHYLENE (PMC 9015)	2	3	1
4264	SPADONE SLUDGE	2	3	1
4267	TRICHLOROETHYLENE FILTERS	3	3	0
4268	OIL RAGS & DEBRIS			
4268	OIL RAGS & DEBRIS			
4268	OIL RAGS & DEBRIS			
4268	OIL RAGS & DEBRIS			
4268	OIL RAGS & DEBRIS			
4269	JET FUEL WITH CHLORINATED SOLVENTS	3	3	1
4269	JET FUEL WITH CHLORINATED SOLVENTS	3	3	1
4270	DILUTE OILY WASTE WATER			
4270	DILUTE OILY WASTE WATER			
4270	DILUTE OILY WASTE WATER			
4270	DILUTE OILY WASTE WATER			
4271	WATER W/OIL, TH . 1000 PPM	3	3	0
4271	WATER W/OIL, TH . 1000 PPM	3	3	0
4272	IGNITABLE PAINT FILTERS			
4273	SOIL CONTAMINATED W/CHLOR. SOLVENT	3	3	0
4275	ELECTROLESS NICKEL SOLUTION	3	0	2
4276	WASTE WATER - ALKALI CLEANING TANK			
4276	WASTE WATER - ALKALI CLEANING TANK			
4277	NICKEL CONTAMINATED FILTERS			
4277	NICKEL CONTAMINATED FILTERS			
4277	NICKEL CONTAMINATED FILTERS			
4281	DEGREASER BOTTOMS (PMC 9015)	2	1	0
4282	DEGREASER BOTTOMS (PMC 9056)	2	1	0
4282	DEGREASER BOTTOMS (PMC 9056)	2	1	0
4282	DEGREASER BOTTOMS (PMC 9056)	2	1	0
4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)	2	1	0
4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)	2	1	0

TABLE 6  
MATERIAL HAZARD RATINGS  
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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)	2	1	0
4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)	2	1	0
4283	STILL BOTTOMS FROM SOLVENT RECOV. (PMC 9056)	2	1	0
4284	JET FUEL & WATER	1	3	0
4284	JET FUEL & WATER	1	3	0
4284	JET FUEL & WATER	1	3	0
4288	MACHINING FLUID			
4288	MACHINING FLUID			
4289	TO 5527			
4289	TO 5527			
4290	CYANIDE CONTAMINATED DEBRIS	3	0	0
4290	CYANIDE CONTAMINATED DEBRIS	3	0	0
4290	CYANIDE CONTAMINATED DEBRIS	3	0	0
4291	SPENT METAL POWDERS			
4291	SPENT METAL POWDERS			
4292	SPENT CARBON FROM NICKEL BATHS			
4293	TRICHLOROETHYLENE - SLUDGE, DEBRIS	3	3	0
4294	WOOD PALLETS - NON HAZ. (NON RCRA SOLIDS)			
4295	WAX WITH 1,1,1, TRICHLOROETHANE	2	1	0
4295	WAX WITH 1,1,1, TRICHLOROETHANE	2	1	0
4295	WAX WITH 1,1,1, TRICHLOROETHANE	2	1	0
4296	WATER SOLUBLE GLUE - RH (NON RCRA LIQUIDS)			
4305	ZINC ACETATE SOLUTION ACID TEST (NON RCRA)			
4306	WASTE CLOTHING (NON RCRA)			
4307	CAUSTIC SODA SOLUTION (PS 292)	3	0	1
4308	PAINT SHOP DEBRIS WITH MEK (PMC 9076)	2	3	1
4311	CARBON ANODES WITH CYANIDE	3	0	0
4313	ALKALI SOLUTION WITH CHROME	3	0	1
4313	ALKALI SOLUTION WITH CHROME	3	0	1
4313	ALKALI SOLUTION WITH CHROME	3	0	1
4315	PAINT THINNER (NON SPECIFIED)	2	3	1
4316	FILTERS & DEBRIS CONTAM.	3	4	1
4320	BIOPEN PENETRANT & WATER			
4321	1,1,1, TRICHLOR & WATER (PH,2)(PMC 9056)	3	1	0
4325	MERCURY CONTAMINATED DEBRIS			
4325	MERCURY CONTAMINATED DEBRIS			
4329	LAB PACKS-FLAMMABLE LIQUID, CORR	3	3	2
4329	LAB PACKS-FLAMMABLE LIQUID, CORR	3	3	2
4330	LAB PACKS - CORROSIVE LIQUID OX.	3	3	2
4332	PCB SM. BURN. CAPACITORS (3LBS OIL)			
4332	PCB SM. BURN. CAPACITORS (3LBS OIL)			
4332	PCB SM. BURN. CAPACITORS (3LBS OIL)			
4333	EP TOXIC FILTERS (CHROMIUM)			
4333	EP TOXIC FILTERS (CHROMIUM)			
4333	EP TOXIC FILTERS (CHROMIUM)			
4334	1,1,1, TRICHLOROETHENE & VASOLINE (PMC 9056)	2	1	0
4335	NON - RCRA ACID BURNABLES (NON RCRA SOLIDS)			
4336	NON - RCRA ALKALI BURNABLES			
4337	EMPTY DRUMS - < 50 PPM PCB (PCB BURNABLES)			

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MATERIAL HAZARD RATINGS  
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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
4338	EMPTY DRUMS - < 50 PPM PCB (PCB BURNABLES)			
4342	LAB PACK - NON RCRA NON DOT (LAB. CHEMICALS)			
4343	LAB PACK - COMPRESSED GAS, FLAMMABLE		3	1
4344	BRAZING SALT AND BRICK			
4345	BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)			
4345	BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)			
4345	BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)			
4345	BURNABLE LIQUID <50 PPM PCB (PCB'S LIQUID)			
4346	DILUTE WATER - BULK FUEL TANKS			
4347	FLAMMABLE SOLVENT		3	1
4347	FLAMMABLE SOLVENT		3	1
4348	LAB PACK - LITHIUM BATTERIES		3	1
4348	LAB PACK - LITHIUM BATTERIES		3	1
4349	ALKALINE CLEANER FOR OIL (PMC 1411, 9271)			
4350	LAB PACK - ORGANIC PEROXIDE (LIQUID)		3	1
4351	RAGS & DEBRIS MISC. NON CHLOR. SOLV.	2	4	1
4351	RAGS & DEBRIS MISC. NON CHLOR. SOLV.	2	4	1
4351	RAGS & DEBRIS MISC. NON CHLOR. SOLV.	2	4	1
4352	SCREENED CRUDE SULFUR (NON HAZ SLUDGE)	2	1	0
4353	SAWDUST CONTAMINATED WITH JET FUEL	1	3	1
4354	ALKALINE DEGREASING	3	0	1
4355	SOIL CONTAMINATED WITH JET FUEL	1	3	1
4358	PAINT AND CHLOR. SOLVENT MIXTURE	2	4	1
4360	1,1,1,TRICH & WAX - RECLAIM (PMC 9056)	2	1	0
4363	PRE - IMPREGNATED FIBERGLASS CLOTH			
4364	LIGHT BALLAST WITH PCB NON REGULATED			
4364	LIGHT BALLAST WITH PCB NON REGULATED			
4365	CONT. DEBRIS <50 PPM PCB - NON REGULATED			
4365	CONT. DEBRIS <50 PPM PCB - NON REGULATED			
4368	BBX SOLUTION & OIL (NON RCRA LIQUIDS)			
4369	POLYSULFIDE RUBBER COMPOUND (PWA 416)			
4370	CONCRETE / SOIL WITH CYANIDE	3	0	0
4371	EDM FILTERS (D000)			
4372	NICKEL BRAZE STRIP	3	4	2
4373	BLEND TANK WASTE - MIXTURE	2	4	1
4373	BLEND TANK WASTE - MIXTURE	2	4	1
4374	LAB PACK - COMPRESSED GAS NON RCRA			
4376	LAB PACKS - FLAMMABLE / CHROME LIQUID		3	1
4377	METAL POWDER - (D001)		3	1
4379	COLT STREET SKINNER TANK	2	4	1
4379	COLT STREET SKINNER TANK	2	4	1
4380	MASKANT W/	2	3	1
4382	ALKALINE CLEANER - TURCO 5948			
4383	ALKALI SLUDGE WITH C	3	0	1
4384	JET FUEL W <50 PPM PCB	1	3	0
4385	PAINT SCRAPINGS (F005) (D008)	2	3	1
4386	SOLIDS CONTAMINATED W/ F005	2	3	1
4387	ECM SOLV. NON RCRA (PS 251)	3	0	1
4389	FILTER PAPER WITH LOW MELT ALLOY			



TABLE 6  
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ITEM	DESCRIPTION	HAZARD IDENTIFICATION		
		HEALTH	FLAMMABILITY	REACTIVITY
4390	LAP PACK WASTE WATER SOLID	3	3	2
4393	CONCRETE W/ CHROME, CYANIDE SOLV.	3	3	1

NOTE: BLANK ENTRIES INDICATE INSUFFICIENT INFORMATION FOR HAZARD RATING ASSIGNMENT

RCRA Part B Permit Application  
United Technologies  
Pratt & Whitney  
CTD 990672081

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APPENDIX C-5  
CONTAINER COMPATIBILITY LISTINGS

TABLE 7  
CONTAINER COMPATIBILITY  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
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ITEM	DESCRIPTION	COMPATIBLE MATERIALS
0001	NITRIC ACID (PMC 1000)	PVC TO 70%, CPVC TO 70%, PP TO 50%, PVDF TO 70%, LDPE TO 50%, HDPE TO 30%, HALAR, SS TO 50%
0001	NITRIC ACID (PMC 1000)	PVC TO 70%, CPVC TO 70%, PP TO 50%, PVDF TO 70%, LDPE TO 50%, HDPE TO 30%, HALAR, SS TO 50%
0001	NITRIC ACID (PMC 1000)	
0002	CHROMIC ACID (PMC 1001)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
0003	MURIATIC ACID (PMC 1002)	PVC, CPVC, PP TO 38%, PVDF TO 38%, LDPE, HDPE, HALAR
0003	MURIATIC ACID (PMC 1002)	
0008	HYDROFLUORIC ACID	PVC TO 75%, CPVC TO 75%, PP TO 75%, PVDF TO 50%, LDPE TO 50%, HDPE TO 50%, HALAR,
0014	OXALIC ACID (PMC 1016)	PVC, CPVC, PP, PVDF, LDPE TO 50%, HDPE TO 50%, HALAR, SS
0022	SULFURIC ACID	PVC TO 93%, CPVC TO 93%, PP TO 95%, PVDF TO 98%, LDPE TO 70%, HDPE TO 70%, HALAR,
0023	ALKALI CLEANER (LIGHT DUTY) (PMC 1252)	PVC, CPVC, PVDF, HALA ,CS
0025	ALKALI CLEANER (LIGHT DUTY) (PMC 1255)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR,
0026	ALKALI CLEANER (HEAVY DUTY)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
0035	ALKALINE RUST REMOVER (PMC 1269)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
0038	ALKALI CLEANER (PMC 1272)	PVC, CPVC
0047	ALKALI CLEANER (SPRAY WASHER TYPE) (PMC 1282)	PVC, CPVC, PVDF, LDPE, HDPE, HALAR, SS, CS
0049	ALKALI CLEANER (GEN. PURP.) (PMC 1284)	
0075	BLACK OXIDE SALTS (FUSED) (PMC 1504)	PVC, CPVC, PP, PVDF, HALAR, SS, CS
0076	SODIUM CYANIDE (PMC 1505)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS, CS
0084	SILVER PLATE BRIGHTENER (PMC 1513)	PVC TO 20%, CPVC TO 20%, PP, PVDF, LDPE, HDPE, HALAR, SS
0088	ROCHELLE SALT (PMC 1518)	
0119	SULFAMIC ACID (PMC 1550)	PVC TO 20%, PP TO 20%
0127	SODIUM NITRITE (PMC 1558)	PVC, CPVC, PP, PVDF, HALAR, SS
0129	SODIUM NITRATE (PMC 1560)	PVC, CPVC, PP, PVDF, HALAR SS, CS
0130	SODIUM CITRATE (PMC 1561)	
0133	SALT/DESCALING TITANIUM/TI ALLOY PT (PMC 1566)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS, CS
0144	CAUSTIC SODA (PMC 1601)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS, CS

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TABLE 7  
CONTAINER COMPATIBILITY  
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ITEM	DESCRIPTION	COMPATIBLE MATERIALS
0144	CAUSTIC SODA (PMC 1601)	CS
0149	POTASSIUM HYDROXIDE (PMC 1606)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
0153	WETTING AGENT (PMC 1610)	
0167	CHROMATE CONVERSION SALTS-ALUMINUM (PMC 1631)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
0199	AMMONIUM HYDROXIDE, CONCENTRATED (PMC 1667)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
0199	AMMONIUM HYDROXIDE, CONCENTRATED (PMC 1667)	
0200	AMMONIUM HYDROXIDE, DILUTE (PMC 1668)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
0200	AMMONIUM HYDROXIDE, DILUTE (PMC 1668)	
0220	CHROMATE CONVERSION SALTS-MAGNESIUM (PMC 1690)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
0249	EPOXY RESIN (PMC 1727)	PP
0259	IND X-RAY AUTO DEVLN REPLN SOLU. (PMC 1739)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
0269	SCREENED CRUDE SULFUR (PMC 1753)	PVC, HALAR
0315	CHEMICAL MILLING MASKANT (PMC 1801)	PVDF, HALAR, SS, CS
0316	SODIUM HYDROXIDE (LIQUID)(PMC 1803)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
0316	SODIUM HYDROXIDE (LIQUID) (PMC 1803)	
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)	
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)	
0317	INDUST. X-RAY AUTO FIXER SOLU (PMC 1804)	
0319	SODIUM HYDROXIDE (PMC 1807)	PVC, CPVC, PP, PVDF, HALAR, SS
0319	SODIUM HYDROXIDE (PMC 1807)	
0333	X-RAY ACETIC ACID STOP BATH (PMC 1821)	PVC TO 20%, CPVC TO 20%, PP, PVDF, LDPE, HDPE, HALAR, SS
0335	GLASS CERAMIC PRECOAT (GREEN)(PMC 1823)	PVDF, LDPE, HDPE, HALAR, SS
0336	GLASS CERAMIC PRECOAT (YELLOW)(PMC 1824)	HALAR, CS
0562	LIQUID POLISHING COMPOUND (PMC 3134)	

TABLE 7  
CONTAINER COMPATIBILITY  
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ITEM	DESCRIPTION	COMPATIBLE MATERIALS
0573	POWDER-CONFINED ABRASIVE FINISH. (PMC 3144)	
0616	LAYOUT AND IDENTIFICATION DYE (PMC 4039)	PVC, CPVC, PP, PVDF, LDPE, HDPE, SS, CS
0617	PURPLE MARK INK-PORUS RUB STMPs (PMC 4040)	
0619	PURPLE INK SOLVENT (ETH GLY MON ETH) (PMC4042)	
0630	INK, METAL MARKING (PMC 4057)	PP, PVDF
0684	COMP, PROTEC, STRIP, PLASTIC (PMC 4153)	
0688	CEMENT (DECALCOMANIA) (PMC 4158)	PVDF, HALAR, SS, CS
0890	POTASSIUM HYDROXIDE (PMC 7029)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS, CS
0890	POTASSIUM HYDROXIDE (PMC 7029)	
0890	POTASSIUM HYDROXIDE (PMC 7029)	
0893	SOLVENT, STODDARD (PMC 9001)	PVDF, HALAR, CS
0893	SOLVENT, STODDARD (PMC 9001)	
0893	SOLVENT, STODDARD (PMC 9001)	
0893	SOLVENT, STODDARD (PMC 9001)	
0894	OIL, MINERAL SEAL (PMC 9002)	PVC, CPVC, PP, PVDF, HALAR
0895	TRICHLOROETHYLENE (LOW RESIDUE)(PMC 9003)	PVDF, SS, CS
0899	ACETONE (PHENOL FREE) (PMC 9008)	PP, HALAR, SS, CS
0899	ACETONE (PHENOL FREE) (PMC 9008)	
0901	PETROLEUM SOLVENT (PMC 9010)	PVDF, HALAR, CS
0901	PETROLEUM SOLVENT (PMC 9010)	
0901	PETROLEUM SOLVENT (PMC 9010)	
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)	PVC, CPVC, PP, PVDF, LDPE, HDPE, SS, CS
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)	
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)	
0903	PERCHLOROETHYLENE, RECLAIM. (PMC 9015)	

TABLE 7  
CONTAINER COMPATIBILITY  
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ITEM	DESCRIPTION	COMPATIBLE MATERIALS
0904	KEROSENE (PMC 9021)	PVC, CPVC, PVDF, HALAR, CS
0905	THINNER, LACQUER (GEN. PURP.)(PMC 9022)	PVDF, HALAR, CS
0905	THINNER, LACQUER (GEN. PURP.)(PMC 9022)	
0905	THINNER, LACQUER (GEN. PURP.)(PMC 9022)	
0914	SPRAY TYPE CLEANER, BUFFERED ALKALI (PMC9046)	
0919	ELECTRIC MOTOR CLEANER (PMC 9054)	PVDF, HALAR, CS
0921	1,1,1-TRICHLOROETHANE (RECLAIM.)(PMC 9056)	HALAR
0921	1,1,1-TRICHLOROETHANE (RECLAIM.)(PMC 9056)	
0921	1,1,1-TRICHLOROETHANE (RECLAIM.)(PMC 9056)	
0922	ALKALINE DRAWING COMPOUND REMOVER (PMC 9057)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
0940	METHYL ETHYL KETONE (PMC 9076)	PP, HALAR
0940	METHYL ETHYL KETONE (PMC 9076)	
0940	METHYL ETHYL KETONE (PMC 9076)	
0943	ALKALINE RUST STRIPPER (PMC 9081)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS, CS
0949	TRICHLOROTRIFLUOROETHANE RECLAIM. (PMC 9087)	
0949	TRICHLOROTRIFLUOROETHANE RECLAIM. (PMC 9087)	
0949	TRICHLOROTRIFLUOROETHANE RECLAIM. (PMC 9087)	
0949	TRICHLOROTRIFLUOROETHANE RECLAIM. (PMC 9087)	
0949	TRICHLOROTRIFLUOROETHANE RECLAIM. (PMC 9087)	
0950	PERCHLOROETHYLENE, VAPOR DEGREASER (PMC 9088)	PVC, CPVC, PP, PVDF, HALAR, CS
0951	METHANOL (PMC 9089)	PVDF, SS
0956	ISOPROPYL ALCOHOL, TECH. GRADE (PMC 9094)	PVC, CPVC, PP, SS
0957	METAL CLEANER (PMC 9095)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
0963	SFT FM COR & COMP MIL-CL11796 (PMC 9109)	PVDF, CS
0970	COR PREV COMP FINGERPRINT MIL-C-15074 (PMC 9118)	PVDF, HALAR, CS

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ITEM	DESCRIPTION	COMPATIBLE MATERIALS
0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)	PVC, CPVC, PVDF, HALAR
0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)	
0983	GRINDING/HONING COMP OIL-HVY DUTY (PMC 9203)	
0985	GRIND. COMP, OIL-TYPE (STAND. DTY) (PMC 9205)	
0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)	PVC, CPVC, PP, PVDF, HALAR
0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)	
0993	ELECTRIC DISCHARGE MACH. FLUID (PMC 9235)	
0999	HI SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)	PVC, CPVC, PP, PVDF, HALAR
0999	HI SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)	
1000	LOW SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)	PVC, CPVC, PP, PVDF, HALAR
1000	LOW SPD CUT OIL/HVY DTY APPLICAT (PMC 9253)	
0081	SODIUM CARBONATE (PMC 1510)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)	PVC, CPVC, PP, PVDF, HALAR
1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)	
1003	GRINDING COMPOUND, OIL TYPE (PMC 9259)	
1022	INHIBITED ETHYLENE GLYCOL (PMC 9380)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1022	INHIBITED ETHYLENE GLYCOL (PMC 9380)	
1030	FLUORESCENT EMULSIFIER (PMC 9408)	
1056	RED DYE (PMC 9505)	
1085	MASKING WAX COMPOUND (PMC 9551)	
1085	MASKING WAX COMPOUND (PMC 9551)	
1126	TABLE WAX OIL (PMC 9600)	PVC, HALAR
1130	WHITE PETROLATUM (PMC 9609)	PVC, CPVC, PP, PVDF, LDPE, HDPE,
1210	BRAZING ALLOY (GREEN STOP) (PMC 9757)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1216	HYDRAULIC OIL (PMC 9805)	

TABLE 7  
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ITEM	DESCRIPTION	COMPATIBLE MATERIALS
1216	HYDRAULIC OIL (PMC 9805)	
1216	HYDRAULIC OIL (PMC 9805)	
1216	HYDRAULIC OIL (PMC 9805)	
1217	LUBRICATING & HYDRAULIC OIL (PMC 9807)	PVC, CPVC, PP, PVDF, HALAR, CS
1217	LUBRICATING & HYDRAULIC OIL (PMC 9807)	
1218	HYDRAULIC OIL (600 SECOND VISCOSITY) (PMC 9810)	PVC, CPVC, PP, PVDF, HALAR,
1226	HYDRAULIC OIL, 150 SUS (PMC 9826)	PVC, PP, HALAR
1232	INHIBITED HYDRAULIC OIL (PMC 9834)	PVDF, HALAR, CS
1232	INHIBITED HYDRAULIC OIL (PMC 9834)	
1236	HYD FLUID FIRE RES VISC APPX 45045C (PMC9843)	
1251	AUTOMOTIVE CRANKCASE OIL (SAE 30) (PMC 9859)	
1253	VACUUM PUMP OIL (PMC 9862)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1253	VACUUM PUMP OIL (PMC 9862)	
1261	OIL, AUTOMOTIVE ENGINE LUB SAE 30 (PMC 9871)	PVC, HALAR
1271	SILICONE LIQUID (PMC 9890)	
1305	PARTING COMPOUND (PMC 9963)	PVC, CPVC, PP, PVDF, LDPE, HDPE, CS
1314	DEVELOPER (PMC 4381)	
1501	ANODIZING SOLUTION (PS 1)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1501	ANODIZING SOLUTION (PS 1)	
1502	MURIATIC ACID SOLUTION-20% (PS 3)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1507	NITRIC ACID SOLUTION - 10% (PS 9)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1509	NITRIC ACID SOLUTION - 50% (PS 11)	PVCCPVC, PP, PVDF, LDPE, HALAR, SS
1509	NITRIC ACID SOLUTION - 50% (PS 11)	
1509	NITRIC ACID SOLUTION - 50% (PS 11)	
1509	NITRIC ACID SOLUTION - 50% (PS 11)	



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ITEM	DESCRIPTION	COMPATIBLE MATERIALS
1509	NITRIC ACID SOLUTION - 50% (PS 11)	
1509	NITRIC ACID SOLUTION - 50% (PS 11)	
1510	PHOSPHORIC ACID SOLUTION - 70% (PS 12)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1510	PHOSPHORIC ACID SOLUTION - 70% (PS 12)	
1512	NICKEL STRIKE SOLUTION (PS 14)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1522	SULFURIC ACID SOLUTION - 40% (PS 25)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1522	SULFURIC ACID SOLUTION - 40% (PS 25)	
1527	INHIBITED ACID SOLUTION - 100% (PS 31)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1527	INHIBITED ACID SOLUTION - 100% (PS 31)	
1527	INHIBITED ACID SOLUTION - 100% (PS 31)	
1527	INHIBITED ACID SOLUTION - 100% (PS 31)	
1531	CHROMATE CONVERSION SOLUTION (PS 36)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS,
1532	ACID CLAR/WELDABLE AMS4026 AL ALLY (PS 37)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1533	TITANIUM ETCHING SOLUTION (PS 38)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1540	INHIBITED ACID SOLUTION (PS 47)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1541	NITRIC-HYDROFLUORIC SOLUTION (PS 48)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1541	NITRIC-HYDROFLUORIC SOLUTION (PS 48)	
1541	NITRIC-HYDROFLUORIC SOLUTION (PS 48)	
1542	HYDROFLUORIC-NITRIC ACID SOLU. (PS 49)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1542	HYDROFLUORIC-NITRIC ACID SOLU. (PS 49)	
1543	SULFURIC ACID SOLUTION - 10% (PS 50)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1543	SULFURIC ACID SOLUTION - 10% (PS 50)	
1545	CAUSTIC SODA SOLUTION - 3% (PS 52)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS, CS
1545	CAUSTIC SODA SOLUTION - 3% (PS 52)	
1546	MURIATIC ACID - 65% (PS 53)	PVC, CPVC, LDPE, HDPE

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ITEM	DESCRIPTION	COMPATIBLE MATERIALS
1546	MURIATIC ACID - 65% (PS 53)	
1546	MURIATIC ACID - 65% (PS 53)	
1546	MURIATIC ACID - 65% (PS 53)	
1547	SULFURIC-HYDROFLUORIC ACID SOLU. (PS 54)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1557	ANODIZE SEAL SOLUTION (PS 66)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1557	ANODIZE SEAL SOLUTION (PS 66)	
1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)	
1583	ALKALI CLEANER (HEAVY DUTY) (PS 101)	
1585	ALUMINUM BRAZING SALT BATH (PS 103)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1593	PAINT STRIPPING SOLUTION (PS 110)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1594	SILVER-COPPER-PALLADIUM BRAZE ALLOY (PS 112)	PVDF, HALAR, SS
1597	CHROMIUM PLATING SOLUTION (PS 115)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1598	CHROMIC ACID SOLUTION (PS 116)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1601	CHROMIUM PLATING SOLUTION (PS 119)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1601	CHROMIUM PLATING SOLUTION (PS 119)	
1604	COPPER STRIP SOLU. (NONELECTROLYT) (PS 122)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS, CS
1607	NITRIC ACID SOLU. - 20% (AIRPORTS) (PS 126)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1607	NITRIC ACID SOLU. - 20% (AIRPORTS) (PS 126)	
1607	NITRIC ACID SOLU. - 20% (AIRPORTS) (PS 126)	
1612	PAINT STRIPPING SOLUTION (PS 131)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1612	PAINT STRIPPING SOLUTION (PS 131)	
1628	ANODIZE SEALING SOLUTION (PS 148)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1649	ALKALI SNOT REMOVAL SOLUTION (PS 211)	
1649	ALKALI SNOT REMOVAL SOLUTION (PS 211)	

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ITEM	DESCRIPTION	COMPATIBLE MATERIALS
1652	ALKALI CLEAN. (HVV DTY) DRAWING COM (PS 214)	
1653	ALKALI CYANIDE CLEAN. SOLU (HVV DTY)(PS 215)	
1657	DESCALING SOLUTION (PS 222)	
1657	DESCALING SOLUTION (PS 222)	
1657	DESCALING SOLUTION (PS 222)	
1657	DESCALING SOLUTION (PS 222)	
1657	DESCALING SOLUTION (PS 222)	
1657	DESCALING SOLUTION (PS 222)	
1660	11% SODIUM HYDROXIDE SOLUTION (PS 225)	
1660	11% SODIUM HYDROXIDE SOLUTION (PS 225)	
1674	CHEMICAL MILLING SOLUTION (PS 249)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1674	CHEMICAL MILLING SOLUTION (PS 249)	
1677	WATER INHIBITOR SOLUTION (PS 253)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1678	ALKALI CLEANER SOLUTION (PS 254)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1689	SULFURIC ACID-SODIUM DICHROMATE SOL (PS 267)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1690	ELECTROCHEMICAL MACHINING (PS 269)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1701	ALCOHOL WATER RINSE (PS 279)	PP, PVDF, LDPE, HDPE, HALAR, SS, CS
1703	COLUMBIUM CLEANING SOLUTION (PS 281)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1711	CYANIDE SOLUTION (PS 302)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS, CS
1715	SILVER PLATE SOLUTION (PS 306)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS, CS
1718	COPPER PLATING SOLUTION (PS 309)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS, CS
1719	COPPER & SILVER STRIP SOLUTION (PS 310)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS, CS
1725	NICKEL STRIP SOLUTION (PS 316)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1730	NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1730	NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)	

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ITEM	DESCRIPTION	COMPATIBLE MATERIALS
1730	NICKEL PLATING SOLUTION (SULFAMATE)(PS 321)	
1740	CONCRALY STRIPPING SOLUTION (PS 331)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1740	CONCRALY STRIPPING SOLUTION (PS 331)	
1740	CONCRALY STRIPPING SOLUTION (PS 331)	
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)	
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)	
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)	
1749	ALKALI CLEANER (GEN. PURPOSES)(PS 343)	
1760	COPPER STRIP SOLUTION (PS 481)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1762	CHROMATE CONVERSION SOLUTION IMMERS (PS 486)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1764	CHROMIC-PHOSPHORIC ACID ANODIZE SOL (PS 488)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1764	CHROMIC-PHOSPHORIC ACID ANODIZE SOL (PS 488)	
1766	FERRIC CHLORIDE SOLUTION (PS 503)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1766	FERRIC CHLORIDE SOLUTION (PS 503)	
1766	FERRIC CHLORIDE SOLUTION (PS 503)	
1766	FERRIC CHLORIDE SOLUTION (PS 503)	
1782	CADMIUM STRIP SOLUTION (PS 590)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1787	ANODIZE TOUCH-UP SOLUTION INNER MET (PS 605)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, CS
1787	ANODIZE TOUCH-UP SOLUTION INNER MET (PS 605)	
1789	ANODIZE TOUCH-UP SOLU. BRSH/SWAB (PS 607)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1810	ETCH INSPECTION ACID SAL SOLU. (PS 631)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1813	TITANIUM ANODIZING SOLUTION (PS 634)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1814	NITRIC ACID SOLUTION - 70% (PS 635)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS,
1815	HYDROCHLORIC ACID SOLUTION - 100% (PS 636)	PVC, CPVC, HALAR
1818	HYDROPHILIC EMULSIFIER SOLUTION (PS 639)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS

TABLE 7  
CONTAINER COMPATIBILITY  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
DECEMBER, 1990

ITEM	DESCRIPTION	COMPATIBLE MATERIALS
1821	NICKEL STRIP SOLUTION (NON CYANIDE)(PS 644)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
1821	NICKEL STRIP SOLUTION (NON CYANIDE)(PS 644)	
1821	NICKEL STRIP SOLUTION (NON CYANIDE)(PS 644)	
1822	HYDROFLUORIC-NITRIC ACID SOLU. (PS 645)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1825	NITRIC-HYDROFLUORIC SOLUTION (PS 648)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
1827	INHIBITED ACID SOLUTION - 10% (PS 653)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
2093	COATING, DIFFUSED ALUMINIDE (PS 273)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
2151	SILICONE RUBBER COMPOUND (PWA 403)	
2160	ADHESIVE/SEALANT (PWA 416)	PP, PVDF, LDPE, HDPE, HALAR, SS, CS
2160	ADHESIVE/SEALANT (PWA 416)	
2162	LIQUID EPOXY RESIN (PWA 421)	PP, PVDF
2162	LIQUID EPOXY RESIN (PWA 421)	
2233	COMPOUND, ANTI GALLING (PWA 550)	PP, PVDF, LDPE, HDPE, HALAR, SS, CS
2452	LUBRICANT AIRCRAFT TURBINE ENGINE (PWA 521)	PVDF, LDPE, HDPE
2452	LUBRICANT AIRCRAFT TURBINE ENGINE (PWA 521)	
2457	ANTI GALLING COMPOUND (PWA 586)	PP, LDPE, HALAR, CS
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)	PVC, CPVC, PP, PVDF, HALAR
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)	
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)	
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)	
2465	INDUSTRIAL WASTE FILTER CAKE (PWA 275)	
2467	ALUMINUM COATING (PWA 595)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR, SS
2470	ABLATIVE COATING COMPOUND (PWA 36752)	LDPE, HALAR, SS, CS
3001	WAX/PERCHLOR (RECLAIMABLE)	LDPE, HDPE, SS, CS
3002	WAX/PERCHLOR (DISPOSAL)	LDPE, HDPE, SS, CS

TABLE 7  
CONTAINER COMPATIBILITY  
PRATT & WHITNEY  
EAST HARTFORD, CONNECTICUT  
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ITEM	DESCRIPTION	COMPATIBLE MATERIALS
3002	WAX/PERCHLOR (DISPOSAL)	
3002	WAX/PERCHLOR (DISPOSAL)	
3002	WAX/PERCHLOR (DISPOSAL)	
3003	CHLORINATED SOLVENTS (MIXTURE)	PP, PVDF, LDPE, HDPE, HALAR, SS, CS
3003	CHLORINATED SOLVENTS (MIXTURE)	
3003	CHLORINATED SOLVENTS (MIXTURE)	
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)	
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)	
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)	
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)	
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)	
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)	
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)	
3004	PAINTS AND PAINT SOLVENTS (MIXTURE)	
3005	CYANIDE (MIXTURE)	PVC, CPVC, PP, PVDF, LDPE, HDPE, HALAR
3005	CYANIDE (MIXTURE)	
3006	ZYGLO RINSE	PVDF, LDPE, HDPE, HALAR, SS, CS
3006	ZYGLO RINSE	
3006	ZYGLO RINSE	
3006	ZYGLO RINSE	
3007	SOLUBLE OIL	PVC, CPVC, LDPE, HDPE
3007	SOLUBLE OIL	
3007	SOLUBLE OIL	
3007	SOLUBLE OIL	
3007	SOLUBLE OIL	

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Sheet A-1 - Plan, Elevations & Wall Sections (10-1-89).

Sheet F-1 - Foundation Plan, Section & Details (10-1-89).

c. Other Construction Information

Appendix D-3 presents available information on protective coatings applied to various surfaces in the existing facilities. Appendix D-4 presents specifications on the underground tanks at CWTP-3.

d. Planned Facilities

A planned hazardous waste handling facility will be constructed in the immediate vicinity of the existing CWTP. It will consolidate all hazardous waste storage facilities into one building, including storage in containers and in tanks.

e. Guidelines for Waste Barrel Management

Pratt & Whitney Container Distribution Center has begun operation allowing P&W greater control in managing hazardous and non-hazardous wastes and related containers. The center will track all waste containers bound for disposal at the Concentrated Waste Treatment Plant in East Hartford (CWTP).

The new container distribution process performed by Container Distribution Center will effect the following changes:

1. Containers will be issued pre-labelled and internally pre-manifested, with liners when appropriate. The label and manifest will be generated from the Industrial Waste Tracking

System (IWTS) which will assign a six (6) digit code to the transaction (container/manifest issuance).

2. The generating departments' responsibility for completing the internal waste manifest/labels will be to complete the "Full Date" and the "Accumulation Start Date".

Container Distribution Center may issue the label/manifest with the accumulation start date completed based on previous knowledge of the waste stream and/or storage area involved. However, if the accumulation date is left blank at issuance, the generating department will complete the accumulation start date with the same date as the full date. As before, the call to CWTP for pick-up of the full container should be made the same day the container becomes full.

3. Use of new container labels

4. Container Distribution Center will issue one six digit lot code, which will encode the labels and internal waste manifest, per request per waste stream (i.e. different EPA waste streams will have separate manifests).

5. A reminder system will be activated once a call is made to CWTP for pick-up, tickling the removal of the waste based on the type of storage area and the "Full Date" on the container.

6. Wastes will be tracked through Waste Transfer from one P&W facility to Waste Disposal and Split/Move/Repackaging, by using the six digit code on the container and manifests. The CWTP will be able to follow each container to ultimate disposal.

### 3. Traffic

#### a. Existing Site

The site plan in Appendix D-1 shows traffic patterns at the existing CWTP. Typically tanker trucks and box trailers making deliveries of waste from other United Technologies plants enter the site through the gate west of the facility for access to CWTP-2. Vendors accepting waste from the facility also use this gate, as well as the road south of CWTP-2 to Willow Street and out through guard post 8 east of the Maintenance Building. All transporters (and at times other types of containers) from other United Technologies plants are unloaded from box trailers in the yard east of CWTP-1 with the trucks typically entering from the roads south of CWTP-2 or east of CWTP-1. Transporters are unloaded from trailers with fork lift

trucks which move the transporters to the unloading stations at CWTP-1 or CWTP-2. Depending on waste inventory or the amount of traffic, transporters may be placed in CWTP-1, CWTP-4, CWTP-5 or CWTP-6 for temporary storage before being moved to unloading stations.

Wastes from the East Hartford plant are typically received in containers using fork lift trucks entering the site via the road south of CWTP-2 or east of CWTP-1. Barrels are typically delivered directly to CWTP-2 although if necessary, the containers are placed in storage on the pad at CWTP-1. Transporters are either taken directly to the unloading stations at CWTP-1 or CWTP-2 or placed in temporary storage at CWTP-1, CWTP-4, CWTP-5 or CWTP-6.

b. Improvements

Traffic patterns will improve upon completion of the planned facilities because access for large vehicles will be easier. The gate on the west side of the site will either be phased out, or depending on the actual site selected, may be used at times as an alternative truck access when other truck pads in the planned facility are occupied or otherwise inaccessible.

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## SECTION H - CLOSURE PLAN AND FINANCIAL REQUIREMENTS

### A. INTRODUCTION

This Closure Plan is provided in accordance with RCRA Regulations for two of the active units at the Concentrated Waste Treatment Plant (CWTP): the storage Building A (CWTP-5) and Storage Building B (CWTP-6). Closure of the remaining three container storage areas (CWTP-1, CWTP-2, CWTP-4) and two tank storage areas (CWTP-2, CWTP-3) is addressed in a separate Closure Plan.

P&W has an approved partial Closure Plan for the Burn-Zol hazardous waste incinerator, and is presently in the process of implementing closure of this unit.

On December 11, 1990 P&W submitted a notification of partial closure to EPA, Region I and to the DEP, and to implement closure of the wax/solvent storage tank located in the same building as the incinerator, in the CWTP area.

The approved partial closure plan for the Burn-Zol hazardous waste incinerator is included in Appendix H-1, and the interim report on closure of this unit is included in Appendix H-2. The partial closure plan for the wax/solvent storage tank is provided in Appendix H-3 while the closure plan for the remaining three container storage areas and two tank storage areas is given in Appendix H-4.

P&W is in the process of replacing some of the storage areas at the Concentrated Waste Treatment Plant. The areas that will continue to be used for permitted storage of hazardous waste, scheduled to be ultimately



closed in the year 2041 (CWTP-5, CWTP-6), are covered by the present closure plan. The remaining areas, which are presently actively used for permitted storage of hazardous waste but are scheduled to be closed in 1993, are covered by the closure plan provided in Appendix H-4.

Closure of these facilities will be performed in a manner that:

1. Minimizes the need for further maintenance, and;
2. Controls, minimizes or eliminates to the extent necessary, post-closure release of hazardous wastes to groundwater, surface water or the atmosphere.

An on-site copy of the closure plan will be maintained at the East Hartford facility until the certification of closure completeness has been submitted to and accepted by the U.S. Environmental Protection Agency (EPA) Region I and the Connecticut Department of Environmental Protection (CTDEP). P&W will notify the EPA Regional Administrator and CTDEP Commissioner at least 45 days prior to the date of final closure is expected to begin. Upon completion of closure of each area, P&W will submit a certification by both P&W and an independent registered professional engineer to the Regional Administrator and the CTDEP Commissioner that the facility has been closed in accordance with the specifications in the approved closure plan. This site-closure certification will include Appendix IX test results, all other pertinent analytical data plus the final confirmation sampling results. Included also will be:

- ° Photographic records of the closure documenting each construction step of the closure process
- ° Contractors daily log
- ° A list of any departure from the approved plan with rationales in accordance with 40 CFR 264.112(c).

In subsequent sections, this Closure Plan provides a description of general methods to be applied and precautions to be taken in closing the two hazardous waste facilities. Table H-1 lists the maximum waste inventory, options for ultimate or partial closure and a schedule for ultimate closure of the units. A summary of specific closure methods applicable to the two container storage areas are described in detail in the following sections.

## B. CLOSURE REQUIREMENTS

### a. General

This section provides a description of general methods to be applied and precautions to be taken in closing the two container areas CWTP-5 and CWTP-6. Table H-1 lists the maximum waste inventory, options for ultimate or partial closure, and a schedule for ultimate closure of the areas.

In order to determine the effectiveness of the closure activities, surface samples will be analyzed both before and after decontamination. A list of hazardous constituent parameters to be used in establishing the performance standard will be developed for each storage area. These clean standard parameter (CSP) lists will consist of all the 40 CFR 264, Appendix IX parameters (Appendix IX) detected during pre-decontamination sampling, and possibly certain 40 CFR 261 Appendix VIII parameters (Appendix VIII) which are not included in Appendix IX. The Appendix VIII parameters will be selected based on the potential for their presence in any given storage area. The inclusion of specific Appendix VIII parameters will be based on a review of all available information including:

- ° Storage Records
- ° Waste Product Records
- ° Material Safety Data Sheets
- ° Process Information
- ° Waste Characterization Information

Prior to decontaminating storage area surfaces, the surfaces will be sampled and analyzed for all Appendix IX constituents. After decontamination, samples of each storage area surface will be analyzed for each of the parameters on the CSP list in order to demonstrate that the cleanup criteria have been met. A clean standard for each identified parameter on the CSP list will be developed for all exposure pathways. The pathways to be addressed are:

- ° Direct Ingestion
- ° Dermal Contact

Health/risk based target standards will be established for each parameter identified and each of the above exposure pathways. The clean standards to be used, as specified in the Interim Final RCRA Facility Investigation (RFI) Guidance, EPA 530/SW-89-031, May 1989 is:

- ° Maximum contaminant levels (MCLs)
- ° Risk-specific doses (RSD)
- ° Reference doses (RfD)
- ° State of Connecticut Action Levels (CTAL).

Later versions of this document may be used if available at the time of closure. The only exceptions to this hierarchy will be if a waste constituent has an RfD lower than its RSD, or if a CTAL is lower than the EPA values. In this case the more stringent values will be used.

In order to establish the clean-up criteria for soil and air, the following performance standards will be used.

If EPA or State of Connecticut recommended exposure limits do not exist for a constituent at the time of closure, the standard will be background levels. If background values are used, they will be statistically verified. Any background values that are shown to be in excess of the health/risk based standards will not be used unless it is demonstrated that the residual constituents are truly indicative of background concentrations and not the result of waste contamination.

It should be noted that concrete samples have already been collected and analyzed during the construction process and prior to storing any waste or other material in the storage areas. This testing data is considered representative of background conditions. Alternatively, background concrete samples may be collected from areas unaffected by manufacturing processes, or waste or product storage. If possible, concrete samples will be collected from the same phase of construction as the installation of the storage areas

themselves. Once the CSP list is developed, specific sample handling and analytical methods will conform to those specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.

b. General Closure Requirements

1. Health and Safety - The decontamination crew will consist of a minimum of two individuals who will be adequately clothed, including self-contained breathing apparatus, if required, and coveralls. Supervision of the decontamination process will include an individual(s) responsible for operation of the TSDF.

The primary basis for the level of personnel protection selected is determined by:

- ° The type, toxicity, measured concentration, and permissible exposure limits of the chemical substances.
- ° The potential or measured exposure to substances in the air, splashes of liquids, or other direct contact with materials due to the work being performed.

The personnel protective equipment used to protect the body against chemical hazards is divided into four categories according to the degree of protection:

- ° Level A - Will be worn when the highest level of respiratory, skin, and eye protection is needed.
- ° Level B - Will be worn when the highest level of respiratory protection is needed, but a lesser level of skin protection is needed.
- ° Level C - Will be worn when the types of airborne substances are known, the concentrations have been measured, and the criteria for using air-purifying respirators are met.
- ° Level D - This level is used where no respiratory or skin hazards are present. Level D protection is primarily a work uniform providing minimal protection.

It is not anticipated that personnel will need to use Levels A or B, although this determination will be made after the complete CSP list is

developed and specific hazardous constituents are known.

2. Sudden or Non-Sudden Release, or Fire Hazard - The decontamination process will be considered as an activity presenting a high risk potential for release of hazardous waste or fire/explosion hazard. As such, the appropriate mechanisms of the Contingency Plan will be ready for activation.

3. Scheduling

Completion of closure will be within 180 days of agency approval of the closure plan or from the last receipt of hazardous wastes; whichever occurs later. The schedule for closure including milestone dates follows:

<u>DAY</u>	<u>ACTIVITY</u>
-45	Written notification of anticipated closure.
0	EPA and CTDEP approved closure plan or last receipt of hazardous wastes (if that is later).
90	All hazardous wastes disposed of off-site at permitted facilities.
100	Inspection for residual wastes complete and all damaged areas identified. Samples collected from damaged areas and analyzed appropriately.
120	Floors cleaned and rinsed. Confirmatory chip samples taken of the concrete containments and soils.
150	Floor repaired as necessary for further use.
180	Completion of closure and certification submittal to the EPA Regional Administrator and CTDEP Commissioner.

All final closure activities will be supervised and certified by an independent registered professional engineer, in addition to P&W personnel.

P&W may require an extension of closure time depending on the season that closure begins.

4. Partial Closure - Partial closure potential for the two hazardous waste storage areas has been noted on Table H-1. The procedures described for ultimate closure would be followed for partial closure.

5. Certification - The following certification should be submitted to the EPA Region I Administrator and the Commissioner of CT DEP upon completion of closure:

"I, \_\_\_\_\_, for Pratt & Whitney, United Technologies  
(Name)  
Corporation, owner and operator of \_\_\_\_\_,  
(Site)  
a hazardous waste storage area and I, \_\_\_\_\_, P.E.,  
(Name)  
employed by \_\_\_\_\_, certify by means of our  
(Firm)  
signatures, that the facility named above has been closed in accordance  
with the method specified by the Closure Plan, and attached hereto.  
Closure was completed on \_\_\_\_\_, after receiving the final  
(Date)  
volume of material on \_\_\_\_\_".  
(Date)

c. Amending the Closure Plan

P&W will amend the closure plan whenever changes in operating plans or facility design affect the closure plan, or whenever there is a change in the expected year of closure. If a request for permit modification is made to authorize a change in operating procedures or facility design, P&W will also request a modification to the Closure Plan at the same time. If a permit modification is made requiring a change in operating procedures or facility design, P&W will make a request for modification of the Closure Plan within 60 days after the change in plans or design occurs.

d. Closure of Container Storage Areas

This closure plan describes the procedures to be followed during closure of the following areas:

- (1) Storage Building A (CWTP-5)
- (2) Storage Building B (CWTP-6)

For these areas it is anticipated that the inventory of hazardous wastes remaining at closure will not exceed the maximum inventory value listed in Table H-1. The procedures for are as follows:

1. Collect two composite concrete chip samples from the containment base of each unit. Each composite will be made up of several discrete samples collected from discolored, soft or otherwise damaged areas to represent worst case conditions. Each composite sample will then be analyzed for Appendix IX constituents.
2. Dispose of all remaining hazardous wastes off-site via licensed vendors for disposal at permitted TSDF's or through the on-site NPDES permitted industrial wastewater treatment system.
3. Evaluate the results of Appendix IX analyses to establish the clean standard parameter (CSP) list and identify corresponding health/risk based target standards.



TABLE H-1  
CLOSURE PLAN SUMMARY  
CWTP  
EAST HARTFORD, CONNECTICUT

<u>Item</u>	<u>Process</u>	<u>Process Code</u>	<u>Maximum Inventory</u>	<u>Closure Options Partial/Ultimate</u>	<u>Schedule For Ultimate Closure Start*/Complete</u>	<u>Year</u>
CWTP-5	Storage Building A	S01	24,000 gallons	x	April, September	2041
CWTP-6	Storage Building B	S01	Total	x	April, September	2041

\*Assumed start date. Completion date based on estimated time of performance of closure.

4. If health/risk based standards do not exist for a specific parameter at the time of closure, a minimum of four background concrete chip samples will be collected and analyzed for the CSP list. This data will be used for comparison in the absence of health/risk based standards.
5. A Health and Safety Plan, specific to the site being closed and the CSP list, will be prepared to cover the closure activities to be performed.
6. The containment areas will then be scrubbed with the appropriate decontamination solution depending on the type(s) of hazardous waste stored in the area, and thoroughly rinsed with water. A summary of recommended decontamination solutions for various types of hazardous wastes along with the formulations of the decontamination solutions is provided in Table H-2.  
  
Spent decontamination solutions and rinsewaters will be collected in existing floor sumps or will be contained through the use of dikes to prevent wash water from migrating into clean areas. This rinsate will be collected using a wet/dry vacuum then collected and discharged to the NPDES permitted industrial wastewater treatment system.
7. All equipment used in closure activities will either be decontaminated or collected and disposed of as hazardous waste. Small manual tools will be decontaminated using an industrial grade non-phosphate detergent and water solution. Equipment used during decontamination, such as brushes, gloves, disposable suits, etc., will be collected in a 55-gallon drum and disposed

TABLE H-2  
CLEANER SOLUTION FORMULATIONS

<u>DECON SOLUTION A -</u>	A solution containing 5 percent sodium carbonate ( $\text{Na}_2\text{CO}_3$ ) and 5 percent trisodium phosphate ( $\text{Na}_3\text{PO}_4$ ).  To 10 gallons of water, add 4 pounds of sodium carbonate (soda ash) and 4 pounds of trisodium phosphate. Stir until evenly mixed.
<u>DECON SOLUTION B -</u>	A solution containing 10 percent calcium hypochlorite ( $\text{Ca}(\text{ClO})_2$ ).  To 10 gallons of water, add 8 pounds of calcium hypochlorite. Stir with a wooden or plastic stirrer until evenly mixed.
<u>DECON SOLUTION C -</u>	A solution containing 5 percent trisodium phosphate. This solution can also be used as a general purpose rinse.  To 10 gallons of water, add 4 pounds of trisodium phosphate. Stir until evenly mixed.
<u>DECON SOLUTION D -</u>	A dilute solution of hydrochloric acid ( $\text{HCl}$ )  To 10 gallons of water, add 1 pint of concentrated hydrochloric acid. Stir with a wooden or plastic stirrer.

TYPE OF HAZARDOUS WASTE

PREFERRED DECONTAMINATION SOLUTION

Inorganic acids, metal processing wastes	A
Heavy metals, i.e., mercury, lead, cadmium	A
Pesticides, fungicides, chlorinated phenols, dioxins, PCPs	B
Cyanides, ammonia, and other non-acidic inorganic wastes	B
Solvents and organic compounds, such as trichloroethylene, chloroform, and toluene	C, A
PBBs and PCBs	C, A
Oily, greasy, unspecified wastes	C
Inorganic bases, alkali, and caustic waste	D

of as hazardous waste using licensed transporters and permitted disposal facilities. Portions of larger tools (i.e. lifts, hoists) which have come in contact with the waste will be decontaminated by steam cleaning. All rinsate generated during decontamination activities will be collected and discharged to the NPDES permitted industrial wastewater treatment system.

8. Once decontamination has been completed as described above, the container storage area will be inspected for cracks or other visible signs of deterioration. If cracks or deteriorated areas are observed then the sampling plan discussed below will be modified to include a representative portion of these areas. For container storage areas that include sumps, one of the samples will be collected from the bottom of the sump.
9. If no cracks, or visible signs of deterioration are found, then non-statistical "judgment sampling" of potentially contaminated areas, based on visual observations, is not possible. Instead, verification sampling will be performed according to the following procedure.

Each of the areas, after decontamination, will be gridded and sampled at locations corresponding to randomly selected grid nodes. The size of the grid interval is determined by this generally accepted mathematical formula:

$$GI = (A/3.14)^{0.5}/2, \text{ where:}$$

GI = grid interval, ft

A = area to be gridded, sq. ft.

The calculated value for the grid interval is then rounded off to the nearest integer and the container storage area is gridded.

The number of samples (n) to be obtained from each slab is determined by the square root of the number of grid nodes. A random number table or generator is typically used to determine which grid nodes or grid areas will be sampled.

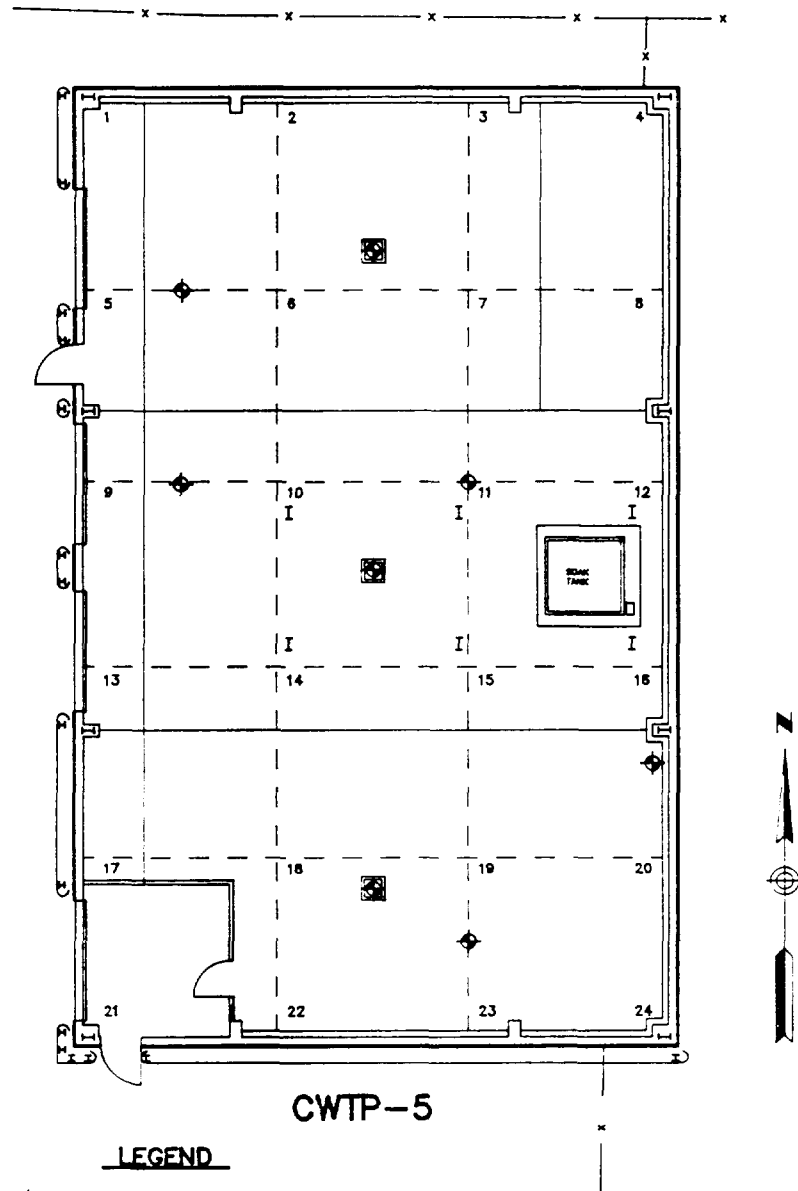
Table H-3 outlines the calculations of the number of verification samples required to be collected from each of the two storage areas to generate statistically viable data according to the procedure outlined above. The number of grid samples is the number of samples statistically required. A random number table procedure was used to calculate the exact location of these samples, which are shown in Figures H-1 and H-2 for the two container storage areas. In addition to these samples, each containment sump will be sampled, raising the number of samples to be collected to the value shown in the last column of Table H-3. The locations of the containment sumps are also shown in Figures H-1 and H-2.

All samples will consist of concrete chip samples collected with an air chisel or concrete drill. The portion of the tool in direct contact with the concrete will be cleaned between samples using an industrial non-phosphate detergent wash and a tap water rinse.

The resulting concrete chips will be transferred directly into laboratory supplied glassware. The field QA/QC program for

TABLE H-3  
CONTAINER STORAGE AREAS  
VERIFICATION SAMPLING

Item	Process	Area (Sq. Ft.)	Grid Interval (Ft.)	No. of Grid Nodes	No. of Grid Samples	No. of Sump Samples	Total No. of Samples
CWTP-5	Storage Building A	3822	17	24	5	3	8
CWTP-6	Storage Building B	1794	12	21	4	3	7

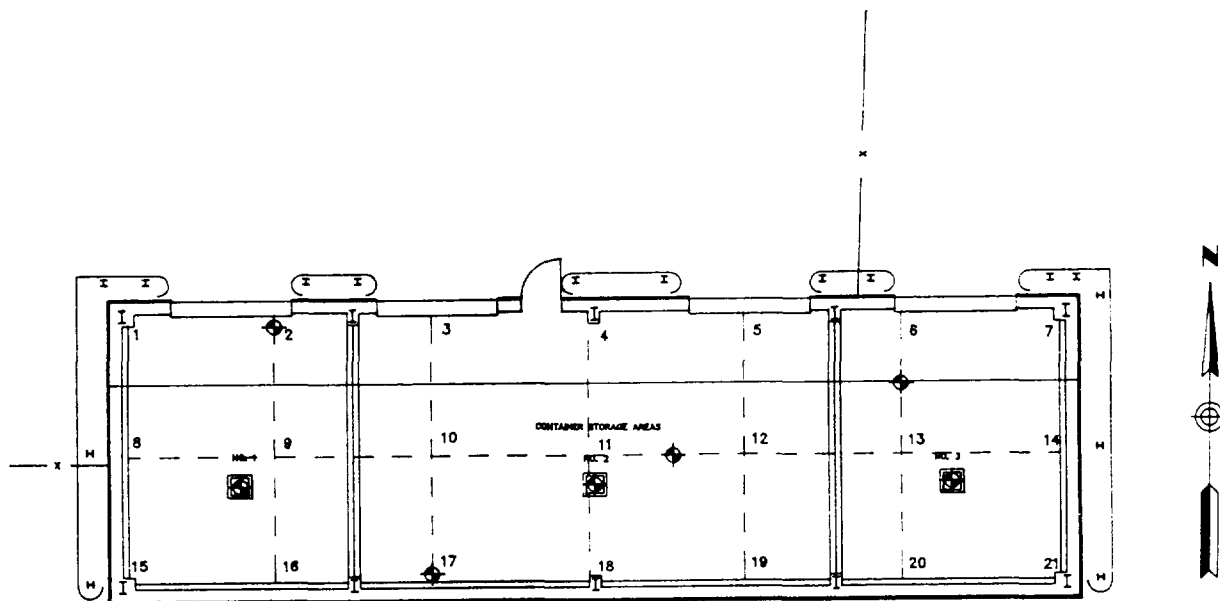


LEA LOUREIRO ENGINEERING ASSOCIATES  
CONSULTING ENGINEERS PLAINVILLE, CT

**FIGURE H-1**  
RCRA PART B PERMIT APPLICATION  
SAMPLING LOCATIONS  
RCRA CLOSURE OF  
CWTP-5 CONTAINER STORAGE AREA

COMM. NO. 9/1-10

CHKD. BY N.S., J.J.L., G.J.	APP. BY J.L.	SCALE 1/8" = 1'-0"	DATE 12/31/90
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CWTP-6

LEGEND

◆ CONCRETE SAMPLING LOCATION

LEA LOUREIRO ENGINEERING ASSOCIATES  
CONSULTING ENGINEERS PLAINVILLE, CT

FIGURE H-2  
RCRA PART B PERMIT APPLICATION  
SAMPLING LOCATIONS  
RCRA CLOSURE OF  
CWTP-6 CONTAINER STORAGE AREA

COMM. NO. 971-10

CHKD. BY N. LOUREIRO	APP. BY J. L.	SCALE 1/8"=1'-0"	DATE 12/31/90
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concrete chip samples will include one duplicate for every 10 samples and one trip blank to accompany the samples to the laboratory. Immediately following sample collection, each sample will be labeled and placed in an iced cooler. The samples will be transported under full chain-of-custody to a State of Connecticut approved laboratory.

The analytical testing and determination procedures are presented in Section C of this Closure Plan.

10. If based on an evaluation of the analytical data (comparison to available health/risk based levels or background) the decontamination efforts are deemed incomplete, the decontamination will be repeated until follow-up sampling demonstrates that parameters are at, or below, health/risk standards or are consistent with background levels. Any concrete chip sampling areas which exhibit levels consistent with background and either above or below health/risk levels will be considered representative of ambient background levels thus decontamination efforts will be deemed complete unless it is determined that background samples have been contaminated with the waste.

11. Complete the certification of closure as presented in Section B(b)(5) of this Closure Plan. Within 60 days of completion of all closure activities, the Certification of Closure will be sent by registered mail to the EPA Regional Administrator and the Commissioner of the Connecticut Department of Environmental Protection.

C. LABORATORY ANALYSIS AND DATA EVALUATION

The analytical methods that will be used for analysis of concrete samples will be those described in the latest edition of EPA Publication SW-846 - Test Methods for Evaluating Solid Waste. The designated laboratory will follow all applicable internal QA/QC procedures outlined in SW-846.

Upon receipt of the analytical data, an initial evaluation of the results will be performed through data validation. Data validation includes a review of field QA/QC procedures (i.e. trip blanks, field duplicates) and laboratory QA/QC procedures (i.e. holding times, blind duplicate analysis, surrogate recoveries). Data points that are not adequately supported by the QA/QC procedures will be referred to the sampling team and/or the laboratory for appropriate corrective actions.

Upon completion of data validation, the results will be compared to background data points and the relevant and appropriate regulatory standards and criteria. An explanation of how this will be performed is presented below.

Data Evaluation

As previously stated, decontamination of the storage areas will be demonstrated complete by concrete chip sampling and comparison to regulatory and background levels.

Test results will be compared to the Health/Risk based target standards specified in the interim final RCRA Facility Guidance (EPA-530/SW-89-031). If any parameter exceeds the applicable target

standard, then decontamination will be deemed incomplete in the area of that sample. Decontamination efforts will continue until follow-up sample data achieves the applicable target standard.

For constituents for which a health/risk based standard is not available, comparison will be made to background data. The analytical results of these samples will be statistically analyzed using Cochran's approximation to the Behrens-Fisher Students' t-Test (40 CFR Part 264, Appendix IV). If the reported concentration of a specific constituent is the method detection limit, the numerical value of the method detection limit will be used in the calculations. The mean and variance of the background samples will be used to determine if clean standard verification samples contain significant constituent concentrations at a 95 percent confidence level. If any parameter exceeds the corresponding background level, decontamination will be considered incomplete in the area of that sample. Decontamination efforts will continue until follow-up sample data achieves the corresponding background level.

#### D. MAXIMUM CLOSURE COST ESTIMATE

The closure costs for the two container storage areas CWTP-5 and CWTP-6 are estimated to be \$269,100 and \$157,950 respectively. A breakdown of the costs is included in Table H-4. All costs assume performance of closure activities by a qualified third-party contractor. The estimates assume that the maximum waste inventory will be present at closure.

The closure cost estimate will be revised whenever a change in the closure plan affects the cost of closure. The closure cost will be adjusted annually as described in 40 CFR 264.14(b).

TABLE H-4

MAXIMUM CLOSURE COST ESTIMATE

ACTIVITY DESCRIPTION	STORAGE BUILDING A CWTP-5	STORAGE BUILDING B CWTP-6
INITIAL SAMPLING & ANALYSIS	\$12,000.00	\$12,000.00
REMOVE & DISPOSE OF REMAINING WASTE (1)	\$150,000.00	\$75,000.00
BACKGROUND SAMPLING & ANALYSIS	\$4,000.00	\$4,000.00
HEALTH & SAFETY	\$3,000.00	\$3,000.00
DECONTAMINATE CONCRETE CONTAINMENTS	\$40,000.00	\$20,000.00
COLLECT AND ANALYZE CONFIRMATORY SAMPLES	\$6,000.00	\$6,000.00
REMOVE AND DISPOSE OF CONTAMINATED CONCRETE (2)	\$10,000.00	\$10,000.00
DATA EVALUATION & CLOSURE CERTIFICATION	\$5,000.00	\$5,000.00
	<hr/>	<hr/>
SUBTOTAL	\$230,000.00	\$135,000.00
INSURANCE (7%)	\$16,100.00	\$9,450.00
CONTINGENCY (10%)	\$23,000.00	\$13,500.00
	<hr/>	<hr/>
TOTAL	\$269,000.00	\$157,950.00

(1) ASSUME MAXIMUM INVENTORY PRESENT AT CLOSURE

(2) ALLOWANCE FOR REMOVAL AND DISPOSAL OF CONTAMINATED CONCRETE (20 TONS)

E. FINANCIAL ASSURANCE

The required financial assurances for closure and pollution liability coverage are presented in Exhibit H-1 in the following order:

- A letter from UTC's Executive Vice President and Chief Financial Officer, John A. Rolls, transmitting financial documentation to the DEP, dated March 29, 1980 including Exhibit A.
- A special report by Price Waterhouse, independent Certified Public Accountants, dated March 28, 1990.
- Letters from UTC's Manager of Regulatory Affairs, John E. Szwast to the EPA, Region I, Regional Administrator, dated March 29, 1990 and to CTDEP also dated, March 29, 1990.
- UTC Annual Report 1989.

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EXHIBIT H-1  
FINANCIAL ASSURANCE DOCUMENTATION

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APPENDIX H-1  
CLOSURE PLAN FOR THE BURN-ZOL  
HAZARDOUS WASTE INCINERATOR

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APPENDIX H-2  
INTERIM REPORT  
CLOSURE OF BURN-ZOL INCINERATOR

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APPENDIX H-3  
CLOSURE PLAN FOR THE  
WAX/SOLVENT STORAGE TANK

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APPENDIX H - 4

CLOSURE PLAN FOR  
THREE CONTAINER STORAGE AREAS  
AND TWO TANK STORAGE AREAS

RCRA CLOSURE PLAN  
FOR  
THREE CONTAINER STORAGE AREAS  
AND TWO TANK STORAGE AREAS  
RESOURCE CONSERVATION AND RECOVERY ACT  
CONCENTRATED WASTE TREATMENT PLANT  
EAST HARTFORD, CONNECTICUT

December 1990

Prepared for:

United Technologies Corporation  
Pratt & Whitney  
400 Main Street  
East Hartford, Connecticut  
EPA ID # CTD990672081

Prepared by:

Loureiro Engineering Associates  
100 Northwest Drive  
Plainville, CT 06062

Comm. No. 971-10



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TABLE 5	MAXIMUM CLOSURE COST ESTIMATE

ACRONYMS

CSP:	Clean Standard Parameter
CTAL:	Connecticut Action Level
CTDEP:	Connecticut Department of Environmental Protection
CWTP:	Concentrated Waste Treatment Plant
EPA:	U.S. Environmental Protection Agency
MCL:	Maximum Contaminant Level
P&W:	Pratt & Whitney
QA/QC:	Quality Analysis/Quality Control
RCRA:	Resource Conservation and Recovery Act
RfD:	Reference Dose
RSD:	Risk Specific Dose

#### A. INTRODUCTION

This Closure Plan is provided in accordance with RCRA Regulations for five of the active units at the Concentrated Waste Treatment Plant (CWTP).

These units are the following:

- |     |                                            |          |
|-----|--------------------------------------------|----------|
| (1) | Treatment Building, Container Storage Area | (CWTP-1) |
| (2) | Barrel Building, Container Storage Area    | (CWTP-2) |
| (3) | Barrel Transporter Storage Pad             | (CWTP-4) |
| (4) | Barrel Building, Tank Storage Area         | (CWTP-2) |
| (5) | Underground Oil Tanks                      | (CWTP-3) |

Three of these units are container storage areas, while the other two are tank storage areas. All of the tanks have secondary containment, although some of the ancillary piping does not.

Closure of these facilities will be performed in a manner that:

1. Minimizes the need for further maintenance, and;
2. Controls, minimizes or eliminates to the extent necessary, post-closure release of hazardous wastes to groundwater, surface water or the atmosphere.

An on-site copy of the closure plan will be maintained at the East Hartford Facility until the certification of closure has been submitted to and accepted by the U.S. Environmental Protection Agency (EPA) Region I and the Connecticut Department of Environmental Protection (CTDEP). P&W will notify the EPA Regional Administrator and CTDEP Commissioner at least 45 days prior to the date final closure is expected to begin. Upon completion of closure of each

area, P&W will submit a certification by both P&W and an independent registered professional engineer to the Regional Administrator and the CTDEP Commissioner that the facility has been closed in accordance with the specifications in the approved closure plan. The closure certifications will include Appendix IX test results, all other pertinent analytical data plus the final confirmation sampling results. Included also will be:

- ° Photographic records of the closure documenting each construction step of the closure process
- ° Contractors daily log
- ° A list of any departure from the approved plan with rationales in accordance with 40 CFR 264.112(c).

In subsequent sections, this Closure Plan provides a description of general methods to be applied and precautions to be taken in closing the hazardous waste storage facilities. Table 1 lists the maximum waste inventory, options for ultimate or partial closure and a schedule for ultimate closure of the units. A summary of specific closure methods applicable to the various systems at this facility are described in detail in the following sections.

## B. FACILITY DESCRIPTION

P&W East Hartford generates a variety of hazardous waste and receives waste from P&W satellite plants located in Connecticut, Maine and New York. Currently these wastes are managed in eleven (11) storage tanks (8 above ground and 3 underground) and five (5) container storage areas all located within an area known as the Concentrated Waste Treatment Plant (CWTP). These operations are located in an area near the northern end of the East Hartford plant complex.

Pratt & Whitney is planning to upgrade these facilities. Design work is in progress and construction is planned for 1991. Wastes generated on-site are also managed at other locations within the facility in containers and tanks for less than ninety (90) days.

The building layout and the exact location of the five storage areas at the Concentrated Waste Treatment Plant, covered by the present Closure Plan are shown in Figure 1.

### C. CLOSURE REQUIREMENTS

#### a. General

This section provides a description of general methods to be applied and precautions to be taken in closing the hazardous waste storage areas. Table 1 lists the maximum waste inventory, options for ultimate or partial closure, and a schedule for ultimate closure of the areas.

In order to determine the effectiveness of the closure activities, surface samples will be analyzed both before and after decontamination. A list of hazardous constituent parameters to be used in establishing the performance standard will be developed for each storage area. These clean standard parameter (CSP) lists will consist of all the 40 CFR 264, Appendix IX parameters (Appendix IX) detected during pre-decontamination sampling, and certain 40 CFR 261 Appendix VIII parameters (Appendix VIII). The Appendix VIII parameters will be selected based on the potential for their presence in any given storage area. The inclusion of specific Appendix VIII parameters will be based on a review of all available information including:

- ° Storage records
- ° Waste Product Records
- ° Material Safety Data Sheets
- ° Process Information
- ° Waste characterization information

Prior to decontaminating storage area surfaces, the surfaces will be sampled and analyzed for all Appendix IX constituents. After decontamination, samples of each storage area surface will be analyzed for each of the

parameters on the CSP list in order to demonstrate that the cleanup criteria have been met. A clean standard for each identified parameter on the CSP list will be developed for all exposure pathways. The pathways to be addressed are:

- ° Direct Ingestion
- ° Dermal Contact

Health/risk based target standards will be established for each parameter identified and each of the above exposure pathways. The clean standards to be used as specified in the Interim Final RCRA Facility Investigation (RFI) Guidance, EPA 530/SW-89-031, May 1989 are:

- ° Maximum contaminant levels (MCLs)
- ° Risk-specific doses (RSD)
- ° Reference doses (RfD)
- ° State of Connecticut Action Levels (CTAL).

Later versions of this document may be used if available at the time of closure. The only exceptions to this hierarchy will be if a waste constituent has an RfD lower than its RSD, or if a CTAL is lower than the EPA values. In this case the more stringent values will be used.

In order to establish the clean-up criteria for soil and air, the following performance standards will be used.

If EPA or State of Connecticut recommended exposure limits do not exist for a constituent at the time of closure, the standard will be background levels. If background values are used, they will be statistically verified. Any background values that are shown to be in excess of the health/risk based standards will not be used unless it is demonstrated that the residual constituents are truly indicative of background concentrations and not the result of waste contamination.

Background concrete samples will be collected from areas unaffected by



manufacturing processes, or waste or product storage. If possible, concrete samples will be collected from the same phase of construction as the installation of the storage areas themselves. Once the CSP list is developed, specific sample handling and analytical methods will conform to those specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.

b. General Closure Requirements

1. Health and Safety - The decontamination crew will consist of a minimum of two individuals who will be adequately clothed, including self-contained breathing apparatus, if required, and coveralls. Supervision of the decontamination process will include an individual(s) responsible for operation of the TSDF.

The primary basis for the level of personnel protection selected is determined by:

- ° The type, toxicity, measured concentration, and permissible exposure limits of the chemical substances.
- ° The potential or measured exposure to substances in the air, splashes of liquids, or other direct contact with materials due to the work being performed.

The personnel protective equipment used to protect the body against chemical hazards is divided into four categories according to the degree of protection:

- ° Level A - Will be worn when the highest level of respiratory, skin, and eye protection is needed.
- ° Level B - Will be worn when the highest level of respiratory protection is needed, but a lesser level of skin protection is needed.
- ° Level C - Will be worn when the types of airborne substances are known, the concentrations have been measured, and the criteria for using air-purifying respirators are met.

- Level D - This level is used where no respiratory or skin hazards are present. Level D protection is primarily a work uniform providing minimal protection.

It is not anticipated that personnel will need to use Levels A or B, although this determination will be made after the complete CSP list is developed and specific hazardous constituents are known.

2. Sudden or Non-Sudden Release, or Fire Hazard - The decontamination process will be considered as an activity presenting a high risk potential for release of hazardous waste or fire/explosion hazard. As such, the appropriate mechanisms of the Contingency Plan will be ready for activation.

### 3. Scheduling

Completion of closure will be within 180 days of agency approval of the closure plan or from the last receipt of hazardous wastes; whichever occurs later. The schedule for closure including milestone dates follows:

<u>DAY</u>	<u>ACTIVITY</u>
-45	Written notification of anticipated closure.
0	EPA and CTDEP approved closure plan or last receipt of hazardous wastes (if that is later).
90	All hazardous wastes disposed of off-site at permitted facilities. Tanks and appurtenances removed and disposed of off-site at permitted facilities.
100	Inspection for residual wastes complete and all damaged areas identified. Samples collected from damaged areas and analyzed appropriately.
120	Floors and equipment cleaned and rinsed. Confirmatory chip samples taken of the concrete containments and soils.
150	Floor and piping repaired and/or sealed as necessary for further use.
180	Completion of closure and certification submittal to the EPA Regional Administrator and CTDEP Commissioner.

All final closure activities will be supervised and certified by an independent registered professional engineer, in addition to P&W personnel.

P&W may require an extension of closure time depending on the season that closure begins.

4. Partial Closure - Partial closure potential for the five facilities has been noted on Table 1. The procedures described for ultimate closure would be followed for partial closure.

5. Certification - The following certification should be submitted to the EPA Region I Administrator and the Commissioner of CT DEP upon completion of closure:

"I, \_\_\_\_\_, for Pratt & Whitney, United Technologies

(Name)

Corporation, owner and operator of \_\_\_\_\_,

(Site)

a hazardous waste storage area and I, \_\_\_\_\_, P.E.,

(Name)

employed by \_\_\_\_\_, certify by means of our

(Firm)

signatures, that the facility named above has been closed in accordance with the method specified by the Closure Plan, and attached hereto.

Closure was completed on \_\_\_\_\_, after receiving the final

(Date)

volume of material on \_\_\_\_\_".

c. Amending the Closure Plan

P&W will amend the closure plan whenever changes in operating plans or facility design affect the closure plan, or whenever there is a change in the expected year of closure. If a request for permit modification is made to authorize a change in operating procedures or facility design, P&W will also request a modification to the Closure Plan at the same time. If a permit modification is made requiring a change in operating procedures or facility design, P&W will make a request for modification of the Closure Plan within 60 days after the change in plans or design occurs.

TABLE 1

CLOSURE PLAN SUMMARY  
CWTP  
EAST HARTFORD, CONNECTICUT

<u>Item</u>	<u>Process</u>	<u>Process Code</u>	<u>Maximum Inventory</u>	<u>Closure Options Partial/Ultimate</u>	<u>Schedule For Ultimate Closure Start*/Complete</u>	<u>Year</u>
CWTP-1	Treatment Buildings: Container Storage Area	S01		x	April, September	1993
CWTP-2	Barrel Building: Container Storage Area	S01	37,360 gallons Total	x	April, September	1993
CWTP-4	Barrel/Transporter Storage Pad	S01		x	April, September	1993
CWTP-2	Barrel Building: Tank Storage Area	S02		x	April, September	1993
CWTP-3	Underground Oil Tanks	S02	85,000 gallons Total	x	April, September	1993

\*Assumed start date. Completion date based on estimated time of performance of closure.

PSW - EH  
 RCRA CLOSURE PLAN  
 CONTAINER/TANK STOR. AREAS  
 DEC. 1990 REV. NO.: 1

d. Closure of Container Storage Areas

This section of the closure plan describes the procedures to be followed during closure of the following areas:

- (1) Treatment Building Container Storage Area (CWTP-1)
- (2) Barrel Building Container Storage Area (CWTP-2)
- (3) Barrel/Transporter Storage Pad (CWTP-4)

For these areas it is anticipated that the inventory of hazardous wastes remaining at closure will not exceed the maximum inventory value listed in Table 1. For the purpose of this plan all the areas listed above are considered as container storage areas and are discussed jointly below. The procedures for closure of these areas are as follows:

1. Collect two composite concrete chip samples from the containment base of each unit. Each composite will be made up of several discrete samples collected from discolored, soft or otherwise damaged areas to represent worst case conditions. Each composite sample will then be analyzed for Appendix IX constituents.
2. Dispose of all remaining hazardous wastes off-site via licensed vendors for disposal at permitted TSDF's or through the on-site NPDES permitted industrial wastewater treatment system.
3. Evaluate the results of Appendix IX analyses to establish the clean standard parameter (CSP) list and identify corresponding health/risk based target standards.

4. If health/risk based standards do not exist for a specific parameter at the time of closure, a minimum of four background concrete chip samples will be collected and analyzed for the CSP list. This data will be used for comparison in the absence of health/risk based standards.
5. A Health and Safety Plan, specific to the site being closed and the CSP list, will be prepared to cover the closure activities to be performed.
6. The containment areas will then be scrubbed with the appropriate decontamination solution depending on the type(s) of hazardous waste stored in the area, and thoroughly rinsed with water. A summary of recommended decontamination solutions for various types of hazardous wastes along with the formulations of the decontamination solutions is provided in Table 2.  
  
Spent decontamination solutions and rinsewaters will be collected in existing floor sumps or will be contained through the use of dikes to prevent wash water from migrating into clean areas. This rinsate will be collected using a wet/dry vacuum then collected and discharged to the NPDES permitted industrial wastewater treatment system.
7. All equipment used in closure activities will either be decontaminated or collected and disposed of as hazardous waste. Small manual tools will be decontaminated using an industrial grade non-phosphate detergent and water solution. Equipment used during decontamination, such as brushes, gloves, disposable suits, etc., will be collected in a 55-gallon drum and disposed

TABLE 2  
CLEANER SOLUTION FORMULATIONS

<u>DECON SOLUTION A</u> -	A solution containing 5 percent sodium carbonate ( $\text{Na}_2\text{CO}_3$ ) and 5 percent trisodium phosphate ( $\text{Na}_3\text{PO}_4$ ).  To 10 gallons of water, add 4 pounds of sodium carbonate (soda ash) and 4 pounds of trisodium phosphate. Stir until evenly mixed.
<u>DECON SOLUTION B</u> -	A solution containing 10 percent calcium hypochlorite ( $\text{Ca}(\text{ClO})_2$ ).  To 10 gallons of water, add 8 pounds of calcium hypochlorite. Stir with a wooden or plastic stirrer until evenly mixed.
<u>DECON SOLUTION C</u> -	A solution containing 5 percent trisodium phosphate. This solution can also be used as a general purpose rinse.  To 10 gallons of water, add 4 pounds of trisodium phosphate. Stir until evenly mixed.
<u>DECON SOLUTION D</u> -	A dilute solution of hydrochloric acid ( $\text{HCl}$ )  To 10 gallons of water, add 1 pint of concentrated hydrochloric acid. Stir with a wooden or plastic stirrer.

<u>TYPE OF HAZARDOUS WASTE</u>	<u>PREFERRED DECONTAMINATION SOLUTION</u>
Inorganic acids, metal processing wastes	A
Heavy metals, i.e., mercury, lead, cadmium	A
Pesticides, fungicides, chlorinated phenols, dioxins, PCPs	B
Cyanides, ammonia, and other non-acidic inorganic wastes	B
Solvents and organic compounds, such as trichloroethylene, chloroform, and toluene	C, A
PBBs and PCBs	C, A
Oily, greasy, unspecified wastes	C
Inorganic bases, alkali, and caustic waste	D



of as hazardous waste using licensed transporters and permitted disposal facilities. Portions of larger tools (i.e. lifts, hoists) which have come in contact with the waste will be decontaminated by steam cleaning. All rinsate generated during decontamination activities will be collected and discharged to the NPDES permitted industrial wastewater treatment system.

8. Once decontamination has been completed as described above, the container storage area will be inspected for cracks or other visible signs of deterioration. If cracks or deteriorated areas are observed then the sampling plan discussed below will be modified to include a representative portion of these areas. For container storage areas that include sumps, one of the samples will be collected from the bottom of the sump.
9. If no cracks, or visible signs of deterioration are found, then non-statistical "judgment sampling" of potentially contaminated areas, based on visual observations, is not possible. Instead, verification sampling will be performed according to the following procedure.

Each of the areas, after decontamination, will be gridded and sampled at locations corresponding to randomly selected grid nodes. The size of the grid interval is determined by this generally accepted mathematical formula:

$$GI = (A/3.14)^{0.5}/2, \text{ where:}$$

GI = grid interval, ft

A = area to be gridded, sq. ft.

The calculated value for the grid interval is then rounded off to the nearest integer and the container storage area is gridded.

The number of samples (n) to be obtained from each slab is determined by the square root of the number of grid nodes. A random number table or generator is typically used to determine which grid nodes or grid areas will be sampled.

Table 3 outlines the calculations of the number of verification samples required to be collected from each storage area to generate statistically viable data according to the procedure outlined above. The number of grid samples is the number of samples statistically required. A random number table procedure was used to calculate the exact location of these samples, which are shown in Figure 1 for each of the container storage areas. In addition to these samples, each containment sump will be sampled, raising the number of samples to be collected to the value shown in the last column of Table 3. The locations of the containment sumps are also shown on Figure 1.

All samples will consist of concrete chip samples collected with an air chisel or concrete drill. The portion of the tool in direct contact with the concrete will be cleaned between samples using an industrial non-phosphate detergent wash and a tap water rinse.

The resulting concrete chips will be transferred directly into laboratory supplied glassware. The field QA/QC program for

TABLE 3  
CONTAINER STORAGE AREAS  
VERIFICATION SAMPLING

<u>Item</u>	<u>Process</u>	<u>Area</u> <u>(Sq. Ft.)</u>	<u>Grid</u> <u>Interval(Ft)</u>	<u>No. of</u> <u>Grid Nodes</u>	<u>No. of</u> <u>Grid Samples</u>	<u>No. of</u> <u>Sump Samples</u>	<u>Total</u> <u>No. of</u> <u>Samples</u>
CWIP-1	Treatment Building Container Storage Area	450	6	20	4	1	5
CWIP-2	Barrel Building Container Storage Area	3306	16	25	5	6	11
CWIP-4	Barrel/Transporter Storage Pad	900	8	27	5	1	6

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FIGURE 1  
SAMPLING LOCATIONS

**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID #** 2341

**Facility Name:** PRATT & WHITNEY - MAIN STREET

**Facility ID#:** CTD990672081

**Phase Classification:** R-1B

**Purpose of Target Sheet:**

☒ **Oversized (in Site File)**      ☐ **Oversized (in Map Drawer)**

☐ **Page(s) Missing (Please Specify Below)**

☐ **Privileged**      ☐ **Other (Provide Purpose Below)**

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\_\_\_\_\_

**Description of Oversized Material, if applicable:**

**FIGURE 1: CONTAINER/TANK STORAGE AREA  
CLOSURE PLAN, SAMPLING LOCATIONS**

\_\_\_\_\_

☒ **Map**      ☐ **Photograph**      ☐ **Other (Specify Below)**

\_\_\_\_\_  
\_\_\_\_\_

**\* Please Contact the EPA New England RCRA Records Center to View This Document \***

concrete chip samples will include one duplicate for every 10 samples and one trip blank to accompany the samples to the laboratory. Immediately following sample collection, each sample will be labeled and placed in an iced cooler. The samples will be transported under full chain-of-custody to a State of Connecticut approved laboratory.

The analytical testing and determination procedures are presented in Section D of this Closure Plan.

10. If based on an evaluation of the analytical data (comparison to available health/risk based levels or background) the decontamination effects are deemed incomplete, the decontamination will be repeated until follow-up sampling demonstrates that parameters are at or below health/risk standards or are consistent with background levels. Any concrete chip sampling areas which exhibit levels consistent with background and either above or below health/risk levels will be considered representative of ambient background levels thus decontamination efforts will be deemed complete unless it is determined that background samples have been contaminated with the waste.
11. Complete the certification of closure as presented in Section C(b)(5) of this Closure Plan. Within 60 days of completion of all closure activities, the Certification of Closure will be sent by registered mail to the EPA Regional Administrator and the Commissioner of the Connecticut Department of Environmental Protection.

e. Closure of Tank Storage Areas

This section describes the procedures to be followed for closure of the tank storage areas which include the following:

- (i) Barrel Building Tank Storage Area (CWTP-2)
- (ii) Underground Oil Tanks (CWTP-3)

The barrel building tank storage area consists of eight above ground tanks with secondary containment and several secondary containment areas for ancillary equipment and loading/unloading stations. The second tank storage area consists of three double wall underground storage tanks with a leak detection system and above ground piping. For each of these areas it is anticipated that the inventory of hazardous wastes remaining at closure will not exceed the maximum inventory value listed in Table 1. For the purpose of this plan all the areas listed above are considered as tank storage areas and are discussed jointly below. The underground tanks are double wall tanks. Therefore, verification sampling will not be required at closure for the UST's as long as the leak detection system remains functional and a leak has not been detected. Steps 1 through 4, 8, and 10 through 12 do not apply to the UST's. After proper decontamination and clean closure of the CWTP-3 area, the three underground oil storage tanks will be left in place as functional units for as yet undefined future use, such as less than 90 days storage of on-site generated hazardous wastes.

The procedures for closure of the tank storage areas are as follows:

1. Collect two composite concrete chip samples from the containment base of each tank and ancillary equipment containment structure. Each composite will be made up of several discrete samples collected from discolored, soft or otherwise damaged areas to represent worst case conditions. Each composite sample will then be analyzed for Appendix IX constituents.
2. Dispose of all remaining hazardous wastes off-site via licensed vendors for disposal at permitted TSDF's or through the on-site NPDES permitted industrial wastewater treatment system.
3. Evaluate the results of Appendix IX analyses to establish the clean standard parameter (CSP) list and identify corresponding health/risk based target standards.
4. If health/risk based standards do not exist for a specific parameter at the time of closure, a minimum of four background concrete chip samples will be collected and analyzed for the CSP list.
5. A Health and Safety Plan, specific to the site being closed, and the CSP List, will be prepared to cover the closure activities to be performed.
6. Once all hazardous waste inventory has been removed, all underground waste feed lines will be decontaminated by flushing with the appropriate decontamination solution and then thoroughly rinsed with tap water. After the third rinse the rinsate will be collected and tested for the CSP List. If the rinsate is found



to be hazardous, then an additional two-step rinsing procedure will be implemented. The first rinse will consist of a non-hazardous biodegradable degreaser and water solution. This will be followed by a potable water rinse. The rinsate from the second rinse will be collected and tested as above to determine if it is hazardous. If the rinsate is hazardous then the two-step rinsing process will be repeated until the plant tap water rinse is determined to be non-hazardous. All rinsate will be collected and discharged to the NPDES permitted industrial wastewater treatment system. The plant tap water will also be analyzed for the CSP list.

7. All above ground and easily accessible underground piping will be removed and disposed of as non-hazardous waste after decontamination. The tank itself and any tank components which have not been decontaminated will either be decontaminated, dismantled and disposed of as non-hazardous waste as described above, or dismantled and disposed of as a hazardous waste without prior decontamination. The cost estimate, presented in Section D of this Closure Plan is based on the assumption that the tank components will be removed and disposed of off-site as hazardous waste.

Disassembly will consist of manual dismantling and/or the use of powered equipment. The option is available to use both hot or cold cutting techniques. The size of stockpiled components will be directly influenced by the disposal facilities requirements

for landfilling. It is anticipated that all piping will be cut into four foot sections and that larger components will not exceed 10 feet in any dimension.

The three double wall underground oil storage tanks, after decontamination will be left in place as functional units for non-permitted future use such as less than 90 day storage of hazardous wastes generated on-site.

8. After removal of the tank components, as described above, the floor of the concrete containment area will then be scrubbed with the appropriate decontamination solution depending on the type(s) of hazardous waste stored in the area, and then thoroughly rinsed with water. A summary of recommended decontamination solutions for various types of hazardous wastes along with the formulations of the decontamination solutions has been provided in Table 2. The containment area for CWTP-2 includes the tanker pads, sumps, overflow tank, the transporter dump stations and the pump room in the basement. The dump station servicing CWTP-3 would also be included.

Spent decontamination solutions or rinsewaters will be collected in existing floor sumps or will be contained through the use of dikes to prevent washwater migrating into clean areas. This rinsate will be collected using a wet/dry vacuum then discharged to the NPDES permitted industrial wastewater treatment system.

9. All equipment used in closure activities will either be decontaminated or collected and disposed of as hazardous waste. Small manual tools will be decontaminated using an industrial

grade non-phosphate detergent and water solution. Equipment used during decontamination, such as brushes, gloves, disposable suits, etc., will be collected in a 55-gallon drum and disposed of as hazardous waste using licensed transporters and permitted disposal facilities. Portions of larger tools (i.e. lifts, hoists) which have contacted the waste will be decontaminated by steam cleaning. All rinsate generated during decontamination activities will be collected and discharged to the NPDES permitted industrial wastewater treatment system.

10. Once decontamination has been completed as described above, the tank storage area containments will be inspected for cracks or other visible signs of deterioration. If cracks or deteriorated areas are observed, then the sampling plan presented below will be modified to include a representative portion of these areas. Containment sumps will be sampled in addition to the samples discussed above. If no cracks or other visible signs of deterioration are found, then non-statistical "judgment sampling" of potentially contaminated areas, based on visual observations, is not possible. Instead, verification sampling will be performed according to the following procedure:

Each of the areas, after decontamination, will be gridded and sampled at locations corresponding to randomly selected grid nodes. The size of the grid interval is determined by this generally accepted mathematical formula:

$$GI = (A/3.14)^{0.5}/2, \text{ where:}$$

GI = grid interval, ft

A = area to be gridded, sq. ft.

The calculated value for the grid interval is then rounded off to the nearest integer and the tank containments are gridded.

The number of samples to be obtained from each slab is determined by the square root of the number of grid nodes.

A random number table or generator is typically used to determine which grid nodes or grid areas will be sampled.

Table 4 outlines the calculations of the number of verification samples required to be collected from the Barrel Building, Tank Storage Area. The truck containment pad and containment tank at the barrel building will be graded separately as shown in Table 4 and Figure 1. No sampling is required for the three underground oil tanks (CWTP-3) since secondary containment requirements for this system are met by the utilization of a double wall tank with an interstitial monitoring system assuming that this system has remained operational and a leak has not been detected.

The number of grid samples is the number of samples statistically required. A random number table procedure was used to calculate the exact locations of these samples, which are shown on Figure 1. In addition to these samples, the containment sumps will be sampled, raising the number of samples to be collected to the value shown in the last column of Table 4. The locations of the containment sumps are also shown on Figure 1. In addition, soil samples will be collected and analyzed from trenches created by the removal of underground pipes at CWTP-2.

TABLE 4  
CLOSURE OF TANK STORAGE AREAS  
VERIFICATION SAMPLING

Item	Process	Area (Sq. Ft.)	Grid Interval	No. of Grid Nodes	No. of Grid Samples	No. of Sump Samples	Total No. of Samples
CWTP-2	Barrel Building Tank Storage Area	1110	9	24	5	1	6
	Barrel Building Truck Containment Pad	1800	12	20	4	3	7
	AND Containment Tank	112	3	20	4	-	4
CWTP-3	Underground Oil Tanks	-----					NA*

NA: Not Applicable

- \* No sampling required for these double walled tanks (secondary containment) equipped with a leak detection system.

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All other samples will consist of concrete chip samples collected with an air chisel or concrete drill. The portion of the tool in direct contact with the concrete will be cleaned between samples using an industrial non-phosphate detergent wash and a potable water rinse.

The resulting concrete chips will be transferred directly into laboratory supplied glassware. The field QA/QC program for concrete chip samples will consist of one field duplicate for every 10 samples and one trip blank to accompany the samples to the laboratory. Immediately following sample collection, each sample will be labeled and placed in an iced cooler. The samples will be transported under full chain-of-custody to a State of Connecticut certified laboratory.

The analytical testing and determination procedures are presented in Section D of the Closure Plan.

12. If based on an evaluation of the analytical data (comparison to available health/risk based levels and background), the decontamination process is deemed incomplete, the decontamination will be repeated until follow-up sampling demonstrates that parameters are at or below health/risk standards or are consistent with background levels. Any concrete chip sampling areas which exhibit levels consistent with background and either above or below health/risk levels will be considered representative of ambient background levels thus decontamination efforts will be deemed complete unless background samples are deemed to be contaminated by the waste.

11. Complete the certification of closure as presented in Section C(b) (5) of this Closure Plan. Within 60 days of completion of all closure activities, the Certification of Closure will be sent by registered mail to the EPA Regional Administrator and the Commissioner of the Connecticut Department of Environmental Protection.

#### D. LABORATORY ANALYSIS AND DATA EVALUATION

##### a. Laboratory Analysis

The analytical methods used that will be for analysis of concrete samples will be those described in the latest edition of EPA Publication SW-846 - Test Methods for Evaluating Solid Waste. The designated laboratory will follow all applicable internal QA/QC procedures outlined in SW-846.

Upon receipt of the analytical data, an initial evaluation of the results will be performed through data validation. Data validation includes a review of field QA/QC procedures (i.e. trip blanks, field duplicates) and laboratory QA/QC procedures (i.e. holding times, blind duplicate analysis, surrogate recoveries). Data points that are not adequately supported by the QA/QC procedures will be referred to the sampling team and/or the laboratory for appropriate corrective actions.

Upon completion of data validation, the results will be compared to background data points and the relevant and appropriate regulatory standards and criteria. An explanation of how this will be performed is presented below.

##### b. Data Evaluation

As previously stated, decontamination of the storage areas will be demonstrated complete by concrete chip sampling and comparison to regulatory and background levels.

Test results will be compared to the Health/Risk based target standards specified in the interim final RCRA Facility Guidance (EPA-530/SW-89-031). If any parameter exceeds the applicable target standard, then decontamination will be deemed incomplete in the area of



that sample. Decontamination efforts will continue until follow-up sample data achieves the applicable target standard.

For constituents for which a health/risk based standard is not available, comparison will be made to background data. The analytical results of these samples will be statistically analyzed using Cochran's approximation to the Behrens-Fisher Students' t-Test (40 CFR Part 264, Appendix IV). If the reported concentration of a specific constituent is the method detection limit, the numerical value of the method detection limit will be used in calculations. The mean and variance of the background samples will be used to determine if clean standard verification samples contain significant constituent concentrations at a 95 percent confidence level. If any parameter exceeds the corresponding background level, decontamination will be considered incomplete in the area of that sample. Decontamination efforts will continue until follow-up sample data achieves the corresponding background level.

E. MAXIMUM CLOSURE COST ESTIMATE

Maximum closure costs for the five storage areas are estimated to be \$1,253,070 in 1990 dollars. A breakdown of the costs is included in Table 5. All costs assume performance of closure activities by a qualified third-party contractor. The estimates assume that the maximum waste inventory will be present at closure.

The closure cost estimate will be revised whenever a change in the closure plan affects the cost of closure. The closure cost will be adjusted annually as described in 40 CFR 264.14(b).

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TABLE 5

MAXIMUM CLOSURE COST ESTIMATE

TABLE H-5  
MAXIMUM CLOSURE COST ESTIMATE

ACTIVITY DESCRIPTION	CWTP-1 (CONTAINERS)	CWTP-2 (CONTAINERS)	CWTP-2 (TANKS)	CWTP-3 (TANKS)	CWTP-4 (CONTAINERS)	TOTAL
INITIAL SAMPLING & ANALYSIS	\$12,000.00	\$12,000.00	\$60,000.00	N/A	\$12,000.00	\$96,000.00
REMOVE & DISPOSE OF REMAINING WASTE (1)	\$50,000.00	\$350,000.00	\$35,000.00	\$20,000.00	\$75,000.00	\$530,000.00
BACKGROUND SAMPLING & ANALYSIS	\$4,000.00	\$4,000.00	\$20,000.00	N/A	\$4,000.00	\$32,000.00
HEALTH & SAFETY	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	\$15,000.00
DECONTAMINATE BURIED PIPING	N/A	N/A	\$5,000.00	N/A	N/A	\$5,000.00
DISMANTLE AND DISPOSE OF ABOVEGROUND TANKS AND ANCILLARY EQUIPMENT (EXCLUDING UNDERGROUND PIPE)	N/A	N/A	\$120,000.00	N/A	N/A	\$120,000.00
REMOVE AND DISPOSE OF UNDERGROUND DOUBLE WALL TANKS	N/A	N/A	N/A	\$80,000.00	N/A	\$80,000.00
REMOVE AND DISPOSE OF ACCESSIBLE UNDERGROUND PIPE	N/A	N/A	\$20,000.00	N/A	N/A	\$20,000.00
DECONTAMINATE CONCRETE CONTAINMENTS	\$3,000.00	\$15,000.00	\$40,000.00	N/A	\$6,000.00	\$64,000.00
COLLECT AND ANALYZE CONFIRMATORY SAMPLES	\$4,000.00	\$8,000.00	\$12,000.00	N/A	\$5,000.00	\$29,000.00
REMOVE AND DISPOSE OF CONTAMINATED CONCRETE (2)	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$50,000.00
DATA EVALUATION & CLOSURE CERTIFICATION	\$2,000.00	\$5,000.00	\$15,000.00	\$5,000.00	\$3,000.00	\$30,000.00
SUBTOTAL	\$88,000.00	\$407,000.00	\$340,000.00	\$118,000.00	\$118,000.00	\$1,071,000
INSURANCE (7%)	\$6,160.00	\$28,490.00	\$23,800.00	\$8,260.00	\$8,260.00	\$74,970.00
CONTINGENCY (10%)	\$8,800.00	\$40,700.00	\$34,000.00	\$11,800.00	\$11,800.00	\$107,100.00
TOTAL	\$102,960.00	\$476,190.00	\$397,800.00	\$138,060.00	\$138,060.00	\$1,253,070.00

(1) ASSUME MAXIMUM INVENTORY PRESENT AT CLOSURE

(2) ALLOWANCE FOR REMOVAL AND DISPOSAL OF CONTAMINATED CONCRETE (20 TONS)

SECTION I - OTHER FEDERAL LAWS

At this time, we believe that this facility is in compliance with the following Federal Laws:

- The Wild and Scenic Rivers Act
- The Endangered Species Act
- The National Historic Preservation Act of 1966
- The Coastal Zone Management Act
- The Fish and Wildlife Coordination Act.

Information will be provided in accordance with the requirements of 40 CFR Part 270.14(b) at the request of EPA Region I.